NOAA/NWS Weather Radio (NWR)

Console Replacement System (CRS)

Operational Build 11.0

Site Operator's Manual

July 2006

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1. SCOPE

1.1. Identification

This Site Operator's Manual (SOM) describes the procedures for operating the Console Replacement System (CRS). It is organized in accordance with DID (U)DI-120B/CRS and submitted to the National Oceanic and Atmospheric Administration (NOAA) as CDRL 008 during Phase I and updated and resubmitted as CDRL 057 during Phase II of the CRS contract.

1.2. Organization of Document

The SOM is organized as follows:

- Section 1, Scope. Specifies the purpose of the manual, describes the organization of the manual, and gives an operational synopsis of CRS. This operational synopsis contains a discussion on CRS operational concepts and nomenclature (see paragraph 1.3.1), which is a must if you are in the process of learning how to use the system.

- Section 2, Applicable Documents. Lists those documents that provided input during the development of the manual as well as those referenced within the manual.

- Section 3, Instructions for Using CRS. Provides an overview of the CRS hardware and then describes the procedures necessary to operate the CRS hardware and software. It also contains a windows overview (see paragraph 3.5.1) and a roadmap (see paragraph 3.6.1) for using CRS to create a broadcast program for the first time (again, a must if you are learning how to use the system).

- Section 4, Error, Warning, & Exception Condition Messages. Describes CRS application software errors and non-CRS system errors.

- Section 5, Diagnostic Features. Describes CRS diagnostic features.

- Appendix I, Loading the CRS Application Software. Describes the procedures for loading the CRS application software.

- Appendix II, AFOS Weather Message Format Specifications. Describes the format specifications for an AFOS weather message.

- Appendix III, List of Acronyms and Abbreviations. Contains abbreviations and acronyms used throughout the SOM.

- Appendix IV, CRS MMI Access Privileges by User Classification. Contains the menu-by-menu access privileges for the three classifications of CRS users, i.e., System Administrator, Operator, and Maintenance Technician.

1.3. CRS Operational Synopsis

This paragraph introduces important CRS operational concepts and terminology. It also presents a brief operational overview, which comprises a description of CRS under normal and backup live operations. This material, particularly that discussed in paragraph 1.3.1, is "essential" (and thus a "prerequisite") to being able to effectively use the CRS to perform its intended mission; hence, you are encouraged to read and to assimilate the material prior to using the system for the first time. This is especially important because many of these concepts relate directly not only to the tasks and logic involved with creating, scheduling, and monitoring broadcast programs, but also to the hardware and software components (in particular, the menus/submenus) provided by CRS to allow you to perform these broadcast-related activities.

Throughout this paragraph broadcast terms/concepts are underlined when first introduced to alert you to them and to also let you know that they will be discussed further in the subparagraphs that follow (unless, of course, they are discussed at the time they are introduced).

1.3.1. Operational Concepts and Nomenclature

Weather broadcasting under CRS control is based on the concept of a broadcast program specific to each transmitter. Broadcast programs comprise a hierarchy of categories (General, High, and Exclusive) within which collections of message types known as broadcast suites are identified and prioritized. Broadcast suites contain references to individual message types or message groups (containing ordered sets of individual message types) associated with a particular weather condition. Broadcast schedules are derived from broadcast program information and available weather messages. Broadcast cycles are the repetitive sequences of weather messages continuously output at the transmitters.

Although the terms broadcast program, broadcast schedule and broadcast cycle are very similar and can cause confusion, they are quite distinct. A broadcast program is like a blueprint from which a broadcast schedule can be constructed. A broadcast schedule is the actual organization of available messages for a specific transmitter in accordance with the broadcast program for that transmitter. A broadcast cycle is the portion of the broadcast schedule that is currently being broadcast at the transmitter.

1.3.1.1. Broadcast Program

CRS provides the site operator with the capability to create, assign, and maintain a different broadcast program for each transmitter. A broadcast program is divided into General, High, or Exclusive categories.

Categories represent a reduction in scope of the messages to be broadcast as weather conditions intensify. The General category is appropriate for "ordinary" weather. As it becomes necessary to reduce the scope of the broadcast and direct listeners' attention to specific weather events or threats, the broadcast category is typically switched to High. The messages broadcast in the Exclusive category are limited to just the immediate weather threat, generally only warnings and their supporting statements, with little or no information extraneous to the hazard(s). It is possible to switch directly from the General category to the Exclusive category and vice versa.

1.3.1.2. Broadcast Suites

Broadcast suites identify those message types or message groups applicable for broadcast in various weather situations. For example, there may be one suite for broadcast during hurricane situations and another for winter storm situations. As a convenience, CRS provides the capability for the site operator to assign simple names to broadcast suites for easier identification and reference.

Each broadcast suite limits the available messages to be broadcast to just those types referenced by that suite. One broadcast suite in the General category is designated the base suite. It comprises message types which are to be played for "ordinary" weather conditions. When no messages in the High or Exclusive categories are available, messages in the base suite are normally broadcast.

Because it may be desirable to broadcast some ordinary weather conditions (e.g., marine weather) only at certain times of the day, CRS also supports one or more time-initiated suites in the General category. When CRS is broadcasting the base suite, and the starting time of a time-initiated suite occurs, the time-initiated suite is broadcast instead of the base suite. When the time-initiated suite times out, broadcasting of the base suite resumes, unless messages are available for suites in the High or Exclusive categories.

Broadcast suites in the High or Exclusive categories are defined to address "extraordinary" weather conditions such as hurricanes, tornados, and winter storms where more selective broadcasting is desired. Among the suites defined in the High and Exclusive categories, precedence is given to the highest priority suite for which active messages are present. Every broadcast suite in the High or Exclusive Category is assigned a unique priority level and must contain at least one message type that is defined to be a trigger for that suite.

When CRS receives a message that is identified as a trigger message, the broadcast suite associated with that trigger message is selected for broadcast if it has higher priority than the current broadcast suite. A triggered broadcast suite remains active until (1) a trigger message for a higher priority suite is received, (2) all trigger messages for the triggered suite expire, or (3) a timeout associated with the triggered suite lapses. In the latter case, CRS selects the highest priority broadcast suite with an active trigger message, or it reverts to the base suite in the general category.

CRS provides the site operator with the capability to easily establish or change broadcast suites, to identify triggering messages, and to specify the category and precedence of the broadcast suites. It is possible to associate more than one trigger message with a particular broadcast suite. However, it is not possible for a trigger message to apply to more than one broadcast suite.

It is possible to have different categories and different suites broadcasting on different transmitters simultaneously. It is also possible to broadcast the same suite (but not necessarily the same messages in the same order) on more than one transmitter.

1.3.1.3. Message Groups

Message groups are ordered lists of message types that are identified by name when referenced in broadcast suites. The intent of a message group is to ensure that messages of the types specified are not randomly inserted into the broadcast cycles, but are broadcast in a well-defined order. For example, a message group may require that the river summary, river statement, and the river forecast be broadcast together and in that order. Message groups cannot be interrupted by time-initiated messages or messages associations defined in the Message Association Table or Message Reference Descriptor (MRD) attribute values.

Although the messages in a message group are broadcast as a set and in a specified order, it is possible to update individual messages in a message group without requiring the update of all messages in the group. If a message is missing from a message group, that "message type" is simply skipped when the available messages of the group are broadcast.

1.3.1.4. Broadcast Schedule

A broadcast program is composed or structured such that a broadcast schedule can be derived from it based on current conditions (i.e., available messages and their message attributes) and the information in the broadcast program. A broadcast schedule is automatically determined for each transmitter from the broadcast program and the active messages received by CRS.

1.3.1.5. Broadcast Cycle

A broadcast cycle is the repetitive sequence of weather messages continuously output at a transmitter. CRS provides the capability to display the broadcast cycle, including information on which messages are being broadcast, in which order and with what recurrence parameters. This display also indicates whether the alert tone and/or any appropriate National Weather Radio Special Area Message Encoder (NWRSAME) codes were successfully transmitted with a message.

1.3.1.6. Messages

The most important unit of information that CRS handles is the weather message. Messages may be live voice, digitized voice, or ASCII text. Messages can be input directly at the CRS (by microphone or from floppy disk) or from an external source (i.e., AFOS or AWIPS).

A message has two parts: the message header (i.e., the message attributes including the message identifier) and the message content (i.e., weather condition intended for broadcast). How CRS processes each message it receives is dependent on the broadcast program and the message attributes.

1.3.1.6.1. Message Attributes

Message attributes are the control parameters associated with each message. Message attributes include the information necessary for CRS to identify messages; to determine when and for how long messages are to be broadcast; to determine whether messages are to be saved after broadcast; to associate messages with groups and/or broadcast suites; to route messages to output channels; to specify whether messages are interruptible or are capable of interrupting other messages; to determine whether any special tones should accompany messages on output; and to determine what, if any, additional message components should accompany messages on output.

Message attribute values may be manually entered by the site operator, established by default from the message type database, attached to messages by AFOS/AWIPS formatters prior to their transfer to CRS, or retrieved from the CRS database along with the message content in response to an operator request. Message attribute values do not have to be entered every time a message is prepared.

1.3.1.6.2. Message Identifier

Messages are uniquely identified by the attribute values Message Type, Listening Area Codes, and MRD taken together.

A message type is a combination of three separate values: node origination site, product category, and specific product designator. The origination site indicates the source of the message. The product category indicates the kind of message (e.g., forecast, watch, warning, etc.). The product designator indicates the specific weather condition of the kind indicated by the product category (e.g., a tornado watch).

Listening Area Codes (LACs) used by the CRS consist of a collection of Universal Generic Codes (UGCs). A UGC is a code that allows the NWS to identify geopolitical areas (e.g., NWS defined zones, counties, parts of counties, and even independent cities) to which a message applies.

In those situations where the message type and LAC together are insufficient to uniquely identify a message, CRS recognizes the MRD attribute value as an extension of the message identifier. As an example of its use, consider a case where it is necessary to issue more than one tornado warning for the same county for overlapping times. Such warnings have the same message type and the same LAC and are intended for broadcast on the same transmitter. Thus, additional coding is necessary to distinguish between or among these warnings, and the MRD accomplishes that.

It should be noted that the CRS site operator can enter an MRD value for voiced messages only when AFOS is connected to CRS. However, CRS will process an MRD contained in the message attributes portion of a weather received from either AFOS or AWIPS.

1.3.1.6.3. Message Entry

CRS provides three methods of message entry: Live (real-time voice), Local (recorded voice), and Remote (ASCII text). At any given time, CRS may have messages in its broadcast cycles that originated from all three of these methods.

All messages stored in CRS regardless of their method of entry are subject to review. Digitized voice messages can be played back to check their content and quality. Text messages can be examined under a text editor or played back to check their content and quality.

1.3.1.6.3.1. Live Message Entry

The site operator can enter an Emergency Override message "live" from the microphone provided with the workstation that immediately interrupts broadcasting in progress at a specified transmitter or transmitters. It is usually accompanied by an alert tone and any appropriate NWRSAME codes, and is recorded simultaneously for subsequent rebroadcast. The Emergency Override broadcast can be directed to one or more specific transmitters, without affecting the scheduled broadcasts on other transmitters served by the CRS console. An Emergency Override broadcast is subject to the minimum amount of manual effort necessary to automatically record, select the applicable transmitter(s), activate the alert tone and/or NWRSAME codes, initiate and end the broadcast, and, if desired to be rebroadcast, accept or change recommended message attributes.

An example of the use of the Emergency Override feature would be to warn of a confirmed tornado on the ground. A broadcast specifying the tornado's position, probable path, and safety instructions would be made live while the written tornado warning was being prepared.

If the Emergency Override message is to be rebroadcast as part of the broadcast cycle, when the recording is complete the CRS will deal with the message as appropriate under the Exclusive, High, or (very rarely) General category suites, or as directed by the operator.

It is possible that a warning situation will require the live broadcast of different warnings on different transmitters simultaneously. It is not required nor is it appropriate to decide which of these warnings will take precedence in dissemination, since CRS supports two simultaneous live broadcasts.

1.3.1.6.3.2. Local Message Entry

A site operator can record weather messages for subsequent broadcast using the microphone provided with the workstation. The operator can adjust recording levels and select the message attributes from an easy-to-use menu or simply specify that default message attribute values be used. The operator can listen to the message both during recording and after digital storage.

A limited number of ASCII text messages will originate from floppy disk storage. Examples are severe weather safety messages prepared by NWS Headquarters and distributed to field sites for use during Hazardous Weather Awareness Week. Weather offices can prepare their own messages for use during Hazardous Weather Awareness Week, if they so choose. Such messages can be prepared ahead of time and stored on diskette, or they may be stored on the hard disk and "activated" when desired by use of the "Active/Inactive" message attribute.

1.3.1.6.3.3. Remote Message Entry

In the remote entry method, formatters on an AFOS/AWIPS system create plain language weather messages in ASCII text which are then transmitted over a communications line to the CRS. The text-to-speech capability of CRS automatically synthesizes the ASCII text into analog voice for subsequent broadcast.

Although the synthesis of ASCII text is automatic, a site operator must ensure that the synthesizer database is correct so that the message content, when synthesized, can be recognized and comprehended by NWR listeners. The "built-in" pronunciations of the DECtalk text-to-speech product used in CRS are consistent with the primary pronunciation provided in Webster's New World Dictionary. The site operator can force DECtalk to pronounce a word differently than the standard pronunciation by supplying a different phonetic spelling. Certain words which are spelled the same but pronounced differently (homographs) have only one assigned pronunciation. For example, "wind" will be pronounced as the "The wind will be from the northwest at 10 mph". "Read" will use only the pronunciation appropriate for the past tense of the verb. "I read that book last week". If it is necessary for DECtalk to provide different pronunciations for the same spelling of a word based on context, then the CRS message formatter (AFOS or AWIPS) must identify the correct pronunciation (e.g., include a phonetic spelling of the word in question).

The CRS is capable of appropriately voicing dates and certain abbreviations. For example, in the context of a date, "1991" will be pronounced "nineteen ninety-one," not "one thousand nine hundred ninety-one". "MPH" will be pronounced "miles an hour". Again it is the site operator's responsibility to augment the "built-in" abbreviation pronunciations as needed.

Finally, and perhaps most importantly, pronunciation of local place names (cities, rivers, mountain ranges, etc.) is often unique to a particular area (e.g., Cairo, Illinois, which is not pronounced the same as the city in Egypt, but as "Karo", like the syrup). Once again, it is the site operator that ensures proper pronunciation by additions and/or modifications to the pronunciation dictionary.

With respect to expletives and profane, vulgar, and scatological terms, CRS provides safeguards to permanently bar or prevent their verbalization.

1.3.1.6.4. Stored Weather Information

CRS provides the capability to maintain weather information in storage until it is needed for broadcast. Weather information includes default attribute values for each message type, broadcast program/schedule information, the weather messages themselves, and message components. With the exception of the weather messages themselves, some of this information will have been furnished with CRS at the time it was initially installed and configured at NWS sites. Some of it may be created by the site operator, or in the case of message types and default values, be received from AFOS/AWIPS. Regardless of how it is initially created or introduced to the system, once weather information is saved in the database, it is available (via the CRS menus) for use in generating broadcast output.

1.3.1.6.4.1. Default Message Attribute Values

A message type can be thought of as a message template containing predefined (or "default") attribute values that collectively form or make up a message header. Default message attribute values may be established for any message in the broadcast program and retained and applied by CRS until changed. For example, when creating a service area forecast, the site operator only has to identify the service area forecast message type, and CRS automatically supplies the default message attribute values previously established for that type.

A site operator has the capability of creating new message types, assigning message types to message groups, and assigning message types and message groups to broadcast suites. Message type creation is typically done in advance of weather message creation so that the default attributes of the message type can be used to create the header of the weather message.

1.3.1.6.4.2. Weather Messages

The message attributes in the message header, whether set from default values associated with the message type or entered by the site operator, partly determine when and how the message "content" will be broadcast. The message content is the narrative weather information that is actually broadcast over a transmitter.

1.3.1.6.4.3. Message Components

Message components are optional message-related weather information in broadcast ready form that can be transmitted with a weather message. Message components include such things as Call-to-Action (CTA), Keep-Alive, Lead-in, Interrupt Announcement, and Station IDs.

CTA message components are safety instructions that are broadcast immediately after weather messages with which they are associated. The association of a CTA with a weather message can be defined in the weather message itself (externally specified), defined by the site operator (operator specified), or defined by association with the message type (CTA list). For externally specified and operator specified associations, only a single CTA announcement is possible. For message type associations, multiple CTA announcements may be defined. The CRS automatically selects the appropriate CTA to be broadcast based on the type of CTA association and a programmed set of CTA processing rules.

The site operator has total control over the broadcast of CTA information for those messages created locally via the method of CTA association chosen. The site operator also has some control over messages created remotely via the message type CTA association and the operator specified association. The site operator cannot control externally specified CTA associations.

A Keep-Alive message is a message that is output on the transmitter immediately following the alert tone and consists of either digitized voice or voice synthesized from ASCII text. Its purpose is to allow receiving equipment enough time (up to 30 seconds) to prepare for the message without triggering the silence alarm at the CRS system.

A lead-in message is an optional statement that precedes the broadcast of a message (e.g., "The National Weather Service has issued a severe weather warning for..."). Lead-in messages may include optional parameters which can be used by the operator to specify place names.

An Interrupt Announcement Message is an optional statement immediately preceding the output of an interrupt message that identifies it as such (e.g., "We interrupt this broadcast to bring you the following weather bulletin from the National Weather Service").

A Station ID periodically identifies a given transmitter as required by the Federal Communications Commission (e.g., "This is National Weather Radio station ...").

The site operator has total control over the content of keep-alive messages, lead-in messages, interrupt announcements and the station ID. Moreover, a site operator controls the association of lead-in and interrupt announcements to particular message types. Finally, the site operator determines the frequency with which the station ID is broadcast.

1.3.1.7. Alert Tones, Transfer Tones, & NWRSAME Codes

The DECtalk text-to-speech synthesizers used for transforming ASCII text messages into analog voice are also capable of generating alert tones, transfer tones, and NWRSAME message headers and trailers.

1.3.1.7.1. Alert Tones

CRS provides the capability to precede the broadcast of any weather message with an alert tone. The alert tone is a broadcast of a specific audio frequency for a limited duration. Some NWR receivers are designed to sound an alarm or to remain mute until the specific frequency is detected, at which point the mute condition is canceled and the broadcast becomes audible.

The message following the alert tone may be live, prerecorded from spoken input, or from an ASCII text message. When the alert tone is activated, CRS imposes no additional delay on the broadcast of the accompanying message. A message is preceded by the alert tone only on its first broadcast at each designated transmitter. Messages cannot be interrupted during their alert tone accompanied broadcast.

1.3.1.7.2. Transfer Tones

CRS provides the capability to generate transfer tone messages, consisting of a tone pair, which command the transmitter to shift back and forth between the primary and secondary transmitters.

1.3.1.7.3. NWRSAME Codes

In addition to the alert/transfer tone capability, CRS also provides the capability for "wrapping" weather messages inside National Weather Radio Specific Area Message Encoded (NWRSAME) headers and trailers. The NWRSAME information specifies the type of message (e.g., tornado warning, severe thunderstorm watch) and area(s), generally county(ies), to which the message applies. NWRSAME selectively activates receivers equipped with the appropriate decoding capability.

A message is accompanied by the NWRSAME codes only on its first broadcast on each designated transmitter. No message can be interrupted during its NWRSAME accompanied broadcast.

1.3.1.8. Message Management

Whether an available message of a particular message type is broadcast and in what order with respect to other available messages is determined by the category and priority of the current broadcast cycle, the available message's attribute values, the attribute values of the messages in the current broadcast cycle, and any operator overrides associated with the available message. At the end of each message transmission CRS automatically determines what message is to be transmitted next based on the above criteria. It is very important that the site operator fully understand the ramifications of the above scheduling criteria on the current broadcast cycle.

The site operator has the ability to "macro manage" the broadcast schedule at a transmitter through the broadcast program (e.g., association of broadcast suites to categories, association of priorities to broadcast suites in the Exclusive and High categories, the association of trigger messages with broadcast suites in the High and Exclusive categories, the specification of timeout values for trigger messages, the specification of start times and recurrence intervals for time-initiated suites in the General category, and the ordering of message types into groups).

The site operator also has the ability to "micro manage" the broadcast schedule at a transmitter through the definition of message attributes, message components, and direct intervention with the broadcast cycle for emergency broadcasts or transmission of transmitter transfer tones. For example, it is necessary to play a warning frequently when it is first received; however, this frequency is normally reduced after a specified period of time. Also a message may need to be initially broadcast as a time-inserted message and then be changed to a sequential message, or vice versa. To accommodate these changes, CRS provides the site operator with access to existing message types as well as the ability to create new message types with associated broadcast parameters.

As a further example of broadcast management options available to an operator, message attribute values determine whether a message is processed as a sequential message or as a time-inserted message during a broadcast cycle. All sequential messages or message groups are broadcast in the order of receipt or as specified in a defined group. Messages are broadcast as long as they are defined in the currently selected broadcast suite, and as long as the message has not expired or been replaced by an incoming message.

Time-inserted messages are distinguished by non-null periodicity values or non-null transmitter recurrence values for messages of that type. Time-inserted messages alter the sequential broadcast of messages when the specified timing conditions occur. A message or message group identified for time insertion is broadcast between the effective times/dates given by the periodicity or recurrence values (e.g., periodicity every fifteen minutes). When the scheduled time and/or the set interval arrives, the message or message group is broadcast one time as soon as the currently broadcasting message or message group finishes. It is important to understand that time-inserted messages are broadcast on a "best effort" basis defined in terms of time intervals and increments relative to a start-time. CRS does not guarantee time insertion at an exact "wall time".

If, due to an oversight, all messages are time insertion and dead air time results, the CRS will default to sequentially broadcasting messages.

It is possible for the site operator to limit the effect of time insertion alterations to a broadcast cycle by defining message groups that identify specific message types and their broadcast order (e.g., the weather summary, weather roundup, radar summary, and local area forecast). A time-inserted message plays either before or after a message group depending on its periodicity and recurrence attribute values and the current time.

Messages designated as "interrupt" messages (i.e., interrupt attribute value is "I") also alter the sequential message flow (including those in groups) of a broadcast cycle. Interrupt messages take precedence over all messages except those messages designated as uninterruptable (i.e., interrupt count attribute values are not zero), watches or warnings on their first broadcast, interrupt messages on their first broadcast, and emergency override messages.

Time-inserted messages and interrupt messages may be output at any point in the normal broadcast sequence in accordance with a set of well-defined scheduling rules. Another change to the broadcast cycle occurs when a new message is received by CRS that replaces a previous version of that same message (e.g., an update is made to a local forecast). In this case, the sequence of broadcast messages is not changed, just the content of one of the messages already in the sequence.

A somewhat more complex change to the broadcast cycle occurs when a new weather message replaces a message of a different type or possibly several messages of different types (e.g., a severe weather statement replaces an associated warning). These changes to the broadcast cycle are based on a locally established database of allowable message type associations (Message Association Table) or on dynamic directives (MRD attribute value) in the new message itself. Again, however, the changes do not affect the broadcast cycle sequence, just the content of messages in the sequence.

There is a related modification to the broadcast cycle that is based on either the Message Association Table or on the MRD attribute value that does affect the broadcast cycle sequence. In this case the message causing the cycle alteration is designated to be played sequentially after another message in the cycle (e.g., a severe weather statement playing after the associated warning).

Finally, it must be understood that the content of a weather message (that portion of the message intended for broadcast) is not the only information transmitted when CRS determines that a message is the next one to be broadcast. The site operator can predefine any of several message components to be output along with the weather message contents. The conditions under which the message components are transmitted, particularly the call to action component, are based on additional scheduling rules. Additionally, the site operator may predefine special tones (alert or NWRSAME) to be broadcast.

Regardless of the automatic scheduling capabilities of CRS, the site operator is ultimately in control of what information is broadcast, how it is broadcast, to whom it is broadcast, and when it is broadcast. Some of the apparent complexity of CRS relates to the inherent difficulties in supporting this basic notion. The CRS is designed to provide the site operator with broadcast scheduling support at whatever level is convenient and appropriate, be it manual or automatic.

1.3.2. Operational Overview

Despite its apparent hardware complexity CRS is a fundamentally simple system. It satisfies its primary mission reliably, flexibly, and efficiently by means of an architecture that combines hardware redundancy (see paragraph 3.1.2) with a distributed software application and database, all of which can be monitored and controlled by a single site operator through an elegant but powerful graphical user interface (see paragraph 3.5.2.1).

The primary mission of CRS is the continuous output of audio weather information at up to 13 NWR transmitters. Figure 2 (in Section 3) provides a schematic diagram that associates the CRS equipment with the information flows supporting this mission. You are encouraged to review this diagram (as well as the other material contained in paragraph 3.1 and dealing with the CRS configuration), as it is important that you develop a working knowledge of the various CRS hardware components and their use.

Basic functions of the CRS mission include the following:

- Weather message creation

  Weather messages are created at an operator's workstation using a combination of graphical display selections and voice input, or they are created remotely at an AWIPS or AFOS system via weather message formatters.

- Weather message input

  Weather messages enter CRS in any of three ways: from an operator's workstation microphone, from AFOS/AWIPS systems over communications lines, and from diskette.

- Weather message storage

  Valid weather messages are stored on the hard disk of the operator's workstation, and all active (based on message attributes) weather messages are also stored on the hard disks of the computer systems in the equipment room. Weather messages may be copied from the hard disk to the diskette and vice versa.

- Weather message scheduling

  CRS supports manual scheduling controlled by commands issued at the site operator's workstation and automatic scheduling controlled by a combination of stored program scheduling logic, predefined scheduling information, and message attribute information distributed over all the CRS computer systems.

- Weather message output

  All weather messages (digitized speech and ASCII text) are transformed by the computers in the equipment room into analog voice messages with accompanying message components and tones, if needed, before being output to the NWR transmitters.

- Weather broadcast monitoring

  All weather information broadcast by CRS can be monitored in real-time. CRS routes broadcast information for a selected channel back to the site operator's headset/handset. Weather information output during backup live operations is also immediately available to the site operator through the headset/handset.

Paragraphs 1.3.2.1 and 1.3.2.2 reinforce the simplicity of the CRS functionality through a discussion of normal and backup operational scenarios.

1.3.2.1. Normal Operation

During normal operation the site operator interacts with CRS for the purpose of controlling and monitoring system activity via a graphical user interface, which is available at either of two identical operator workstations. Operator input is in the form of commands/requests (e.g., mouse clicks, menu selections, data entry), and operator output is in the form of responses (e.g., display windows, status indications, data).

CRS automatically determines and controls the order, timing, and sequencing of all audio transmissions at all configured transmitters in accordance with stored broadcast program information, incoming weather message attribute information, and/or operator commands. CRS operator intervention is not necessary for maintenance and control of continuous weather output at all configured transmitters.

Weather messages enter the system in one of three ways: microphone (analog voice), AFOS/AWIPS communication link (ASCII text), or diskette (ASCII text). They are validated (for proper start and end of message delimiters, complete and correct attributes, no vulgar language in text messages) and then stored. Valid ASCII text messages are stored on disk in ASCII text format. Valid analog voice messages are stored on disk in digitized voice format.

Messages determined to be "active" and those broadcast programs assigned to the configured transmitters are processed by CRS software to produce broadcast schedules, one for each transmitter. Scheduled (for output) messages are converted to analog (digitized or synthesized) voice and output along with alert tones, transfer tones, and NWRSAME codes as part of a broadcast cycle.

Weather messages in a broadcast cycle are repetitively transmitted (steady state) until a condition arises that necessitates a change to the cycle, including but not limited to:

- Input weather message attribute value (e.g., trigger, replacement, interrupt)
- Expiration of scheduled message(s) in the broadcast cycle
- Expiration of broadcast suite trigger message(s) or timeout
- Direct operator action to modify the broadcast cycle (e.g., emergency override broadcast, transfer tone transmission, broadcast cycle change)
- Indirect operator action to modify the broadcast cycle (e.g., broadcast category change, broadcast suite change, message group change)
- Status input (silence detection)

Stored weather messages remain on the disk until they are replaced or removed. All weather message processing events (input, storage, output, deletion) are recorded in a log on the disk.

1.3.2.2. Backup Live Operation

During backup live operation the site operator directly determines and controls the order, timing, and sequencing of all audio transmissions by manual interaction with the audio control panel (ACP, see paragraph 3.4). Weather messages enter the system in one way: microphone (analog voice). Weather messages are output as analog voice transmissions interspersed with appropriate tones and NWRSAME messages from GFE NWRSAME encoder(s).

In backup live mode, message output is routed directly from the operator microphone through the audio switch assembly (ASA) to the selected configured transmitters completely circumventing all CRS computer components. Additionally, the operator has the capability for sequencing and controlling alert and transfer tone generation and NWRSAME message generation to one transmitter output channel at a time.

2. APPLICABLE DOCUMENTS

The following documents were referenced during the development of the SOM.

2.1. Referenced Government Documents

50-DDNW-5-00045 December 1994	Console Replacement System Contract

2.2. Referenced Non-Government Documents

CRS/SYST/RSP/001-5 July 1998	Console Replacement System (CRS) System Requirements Specification (SRS)
CRS/SOFT/DSP/001-5 August 1997	Console Replacement System (CRS) System Design Specification (SDS)
CRS/SOFT/MAN/001-3 January 1996	Console Replacement System CRS) User Interface Specification (UIS)
CRS/SOFT/MAN/004-7 June 1998	Console Replacement System CRS) Maintenance Manual

2.3. Commercial Documents

NOAA Weather Radio Specific Area Message Encoder Manual, Nemar, Inc.

Programming with System Calls and Libraries, 1994, Novell, Inc.

3. INSTRUCTIONS FOR USING CRS

3.1. CRS Hardware Architecture Description

3.1.1. System Overview

Figure 1 is a physical view of the CRS hardware for the large configuration. (Three CRS configurations are offered to satisfy site-level requirements, i.e., typical, large, and maximum--see paragraph 3.1.2). The equipment on the left constitutes the CRS operators' environment, and two such workstations are installed in the operations area at a site. The equipment on the right constitutes the CRS audio processing and switching equipment with system support console (operating system and maintenance environment) and printer, and all of it is installed in the equipment room at a site.

CRS is based on a proven distributed system architecture incorporating loosely coupled PC based computer systems interconnected by an Ethernet local area network (LAN). The entire configuration is controlled from an operator environment equipped with an X-Window based graphical man-machine interface and a panel of manual controls and status indicators in support of the backup live operational mode.

Reliability is assured through redundancy of hardware (dual main systems and N+1 front-end systems) and data (file shadowing/mirroring), extensive use of COTS (UNIX, c-tree PLUS, Motif) and reusable hardware and software components (secure network queue manager) and designs, and careful adherence to operating system, programming language, and interface standards (POSIX, C, and GOSIP).

Speech processing is performed by independent COTS components in separate domains, i.e., voice digitization on the main processors (MPs), voice synthesis on the front-end processors (FEPs), and voice conversion (text to .wav) on a standalone computer (not pictured in Figure 1), merged and augmented by tone generation and National Weather Radio Specific Area Message Encoder (NWRSAME) codes prior to transmitter output. The NWRSAME function responsible for computer-controlled frequency shift keying (FSK) modulated message generation is fully integrated to ensure proper synchronization with voice output. Final confirmation of the NWRSAME message being included in the actual transmitter broadcast is obtained via the ROAMS MU dial-up capability of CRS.

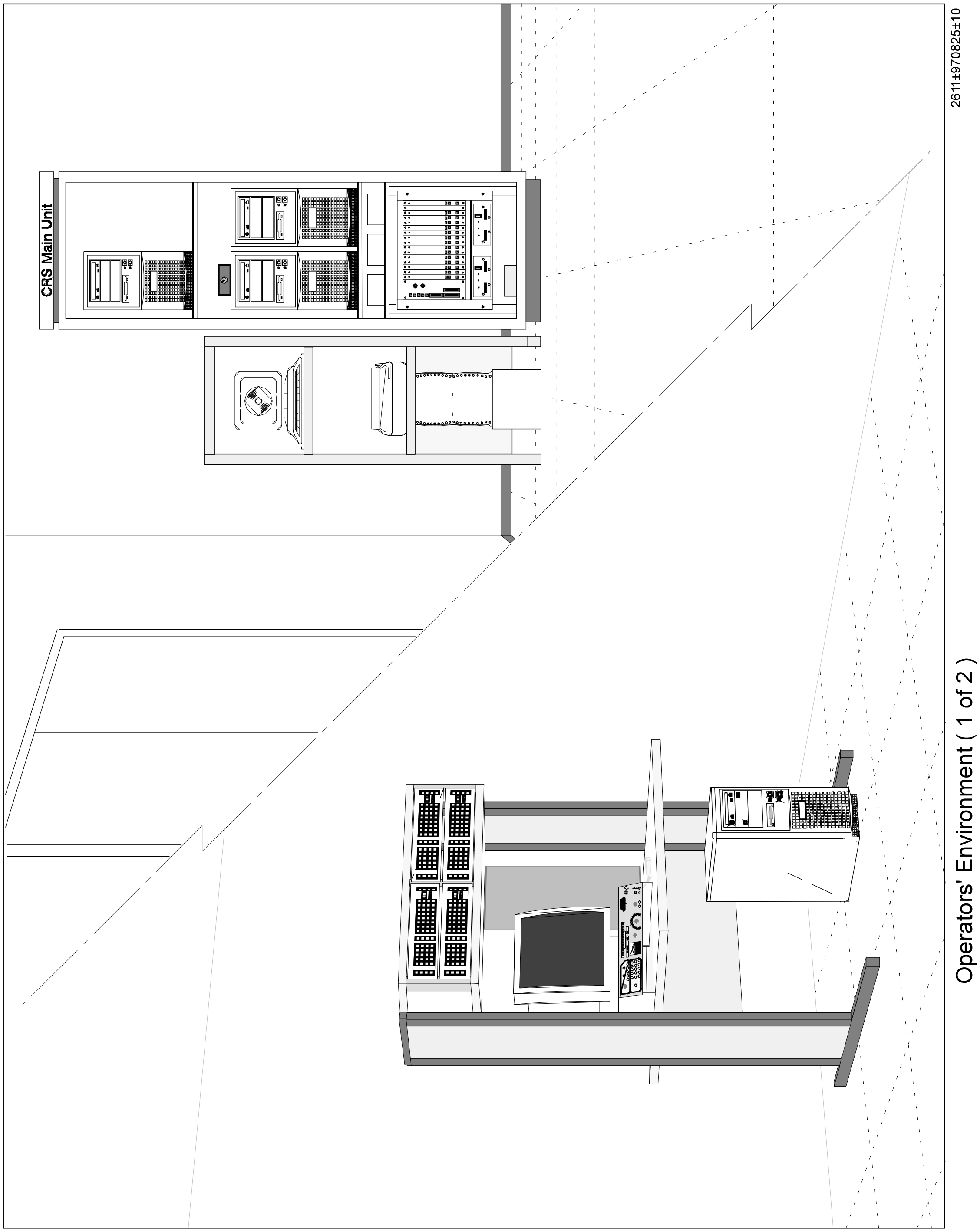

Equipment Room
CRS Main Unit
Operators' Environment (1 of 2)
2611±970825±10

Figure 1. Console Replacement System, Physical View
Large Configuration

Maintenance and support of the system over its useful life are simplified by use of common hardware (Pentium baseframe) and software (UNIX System V Release 4.2) components resulting in a minimum number of distinct Line Replaceable Unit (LRU) types and strict compliance with required standards.

3.1.2. Hardware Configuration Overview

As noted above, three sizes of CRS configurations are available to satisfy individual site-level requirements, i.e., typical, large, and maximum. Figure 2 presents a maximum CRS System Hardware configuration (with Voice Improvement Processor, VIP) which supports concurrent operation of individual broadcast programs on 13 transmitter audio output channels and 2 monitor/playback channels.

The distributed processor based architecture comprises a fully dualized pair of main processors (MPs) with associated operator workstations located in the operators' environment.

The LAN terminal server "connects" the external serial interfaces to the MP that has been assigned master control at a given time, and both MPs are likewise connected to the CRS printer via the LAN server, with hardcopy outputs produced on a first-come, first-served basis.

A single port on the LAN server is assigned to receive ASCII based weather information from AFOS. Initially, the AFOS is connected and supported by a simplified RS232 protocol and an application software interface. Later on the AWIPS system will replace AFOS, at which time the interface is modified to a direct LAN connection, supported by the TCP/IP protocol stack. Also, the AWIPS interface supports remote control of CRS via an application software-based X-Window interface.

Another port on the LAN server is assigned to the dial-up modem interface for ROAMS MUs to deliver transmitter status reports.

The local area network (LAN) connects the main processors with the front-end processors (FEPs), configured with N+1 redundancy and the standalone VCC and installed in the equipment room.

A typical CRS configuration (1 to 4 independent transmitter channels plus 1 playback channel) comprises one active FEP and the backup FEP. A large CRS configuration (5 to 8 independent transmitter output channels plus 2 playback channels) includes two active FEPs and the common backup FEP as shown in Figure 2. A maximum CRS configuration comprises 4 FEPs and supports

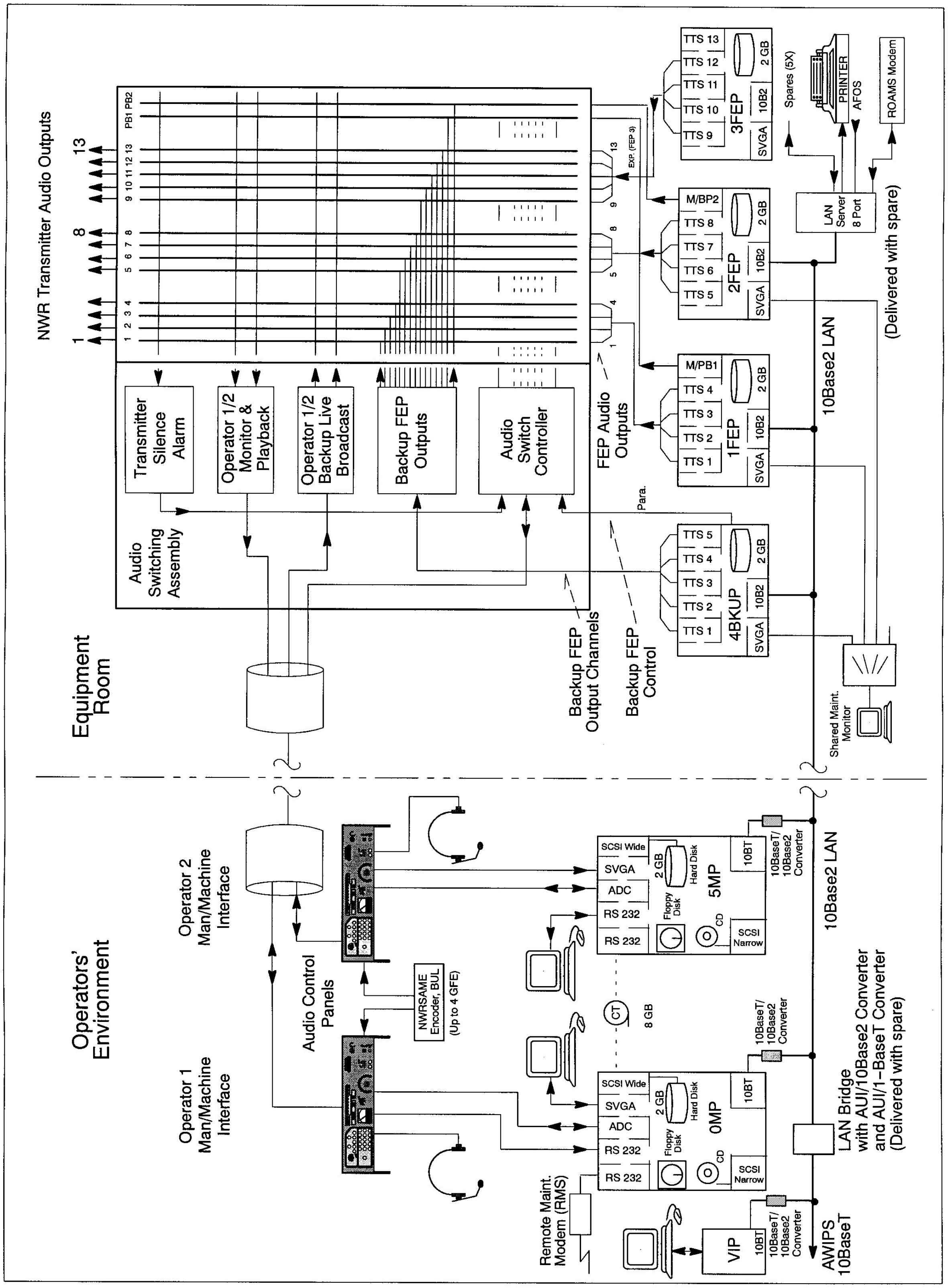

NWR Transmitter Audio Outputs
1
8
13
1 2 3 4 5 6 7 8 9 10 11 12 13 PB1 PB2
Equipment Room
Audio Switching Assembly
Transmitter Silence Alarm
Operator 1/2 Monitor & Playback
Operator 1/2 Backup Live Broadcast
Backup FEP Outputs
Audio Switch Controller
FEP Audio Outputs
Para.
EXP. (FEP 3)
Backup FEP Output Channels
Backup FEP Control
TTS 1
TTS 2
TTS 3
TTS 4
TTS 5
4BKUP
SVGA
10B2
2 GB
M/PB1
1FEP
TTS 6
TTS 7
TTS 8
M/BP2
2FEP
TTS 9
TTS 10
TTS 11
TTS 12
TTS 13
3FEP
Spares (5X)
PRINTER
AFOS
ROAMS Modem
LAN Server 8 Port
(Delivered with spare)
10Base2 LAN
Shared Maint. Monitor
Operators' Environment
Operator 2 Man/Machine Interface
Operator 1 Man/Machine Interface
Audio Control Panels
NWRSAME Encoder, BUL
(Up to 4 GFE)
CT
8 GB
SCSI Wide
SVGA
ADC
RS 232
RS 232
Hard Disk
Floppy Disk
CD
5MP
0MP
10BT
SCSI Narrow
10BaseT/ 10Base2 Converter
10Base2 LAN
LAN Bridge with AUI/10Base2 Converter and AUI/1-BaseT Converter (Delivered with spare)
Remote Maint. Modem (RMS)
VIP
AWIPS 10BaseT

Figure 2. CRS Hardware Block Diagram, Large Configuration

operation of 9 to 13 independent transmitter output channels and 2 playback channels for operator use.

The Pentium baseframe processor configuration has been applied as a standardized COTS system component for all MPs (Pentium III, 600 MHz) and all FEPs (200 MHz). The standardized baseframe includes the processor/backplane assembly with integrated graphics display controller, installed Ethernet LAN controller, CD-ROM, power supply, 32 MB main memory, 1.44 MB floppy disk assembly, SCSI-wide controller, and 2GB hard disk drive.

In addition to this unified baseframe configuration, MPs are all populated with the same complement of peripheral and input/output controllers, and all FEPs are configured with up to a maximum of five Text-to-Speech (TTS) boards. The TTS board also supports transmission of digitized voice plus NWRSAME codes, and it generates the required alert and transfer tones under program control.

The two color graphics terminals (including display, keyboard, and mouse/mousepad) in combination with the two headsets and custom audio control panels provide two fully furnished operator stations, and separate connections from the audio control panels to the audio switching assembly facilitate redundant backup live audio paths from the microphones through individual crossbar switches to the selected transmitter output channel(s).

The standalone VIP is a Pentium III processor configured with Linux, 512 MB to 1 GB main memory, graphics controller, 10BaseT Ethernet LAN controller, 1.44 MB floppy disk assembly, CD-ROM, and 20 GB hard disk drive with dedicated 17" monitor, keyboard, and mouse.

The audio switching assembly (ASA) is customized to match the functional and RMA related specifications of CRS and is based on CommPower's fail-safe solid state line switch product. The two audio control panels are designed to match the operational flexibility and computer independence in support of the backup live mode of CRS operations. Backup alert and transfer tone generators are housed in the audio control panels and activated manually. Furthermore, a maximum of four GFE NWRSAME encoders with manual programming capabilities can be connected to each of the two audio control panels and applied during backup live operations.

3.2. CRS Powerup Procedures

The following devices must be powered up (and preferably in the order listed) to effectively bring the CRS into operational mode.

- Equipment Room
  - Surge Suppressors
  - Printer
  - System Maintenance Console
  - Audio Switching Assembly
  - ROAMS Dial-up Modem
  - LAN Servers
  - Front-End Processors
- Operator's Environment
  - Surge Suppressors
  - NWRSAME Encoders
  - Audio Control Panels
  - Workstation Monitors
  - Main Processors
  - Voice Improvement Processor

The procedures for powering up each of the above devices are described in the following paragraphs. If necessary, refer to Figure 3 and Figure 4 (Equipment Room and Operators' Environment, respectively) for the location of these devices.

3.2.1. Equipment Room

3.2.1.1. Power up Surge Suppressor Power Strips

The surge suppressor power strips are secured to the inside rails of the CRS main unit cabinet, and they are hardwired into the power junction box in the bottom of the cabinet. Thus, when the junction box is plugged into the power source at the site, the power strips are automatically powered up.

3.2.1.2. Power up Printer

The power ON/OFF rocker switch for the printer is located on the top (upper left) of the printer enclosure. The "0" represents the OFF position; the "1" represents the ON position. To power up the printer, activate the ON/OFF rocker switch to the "1" position. The printer will enter a self-test mode. At completion of the self-tests, the printer, by default, will be placed on-line.

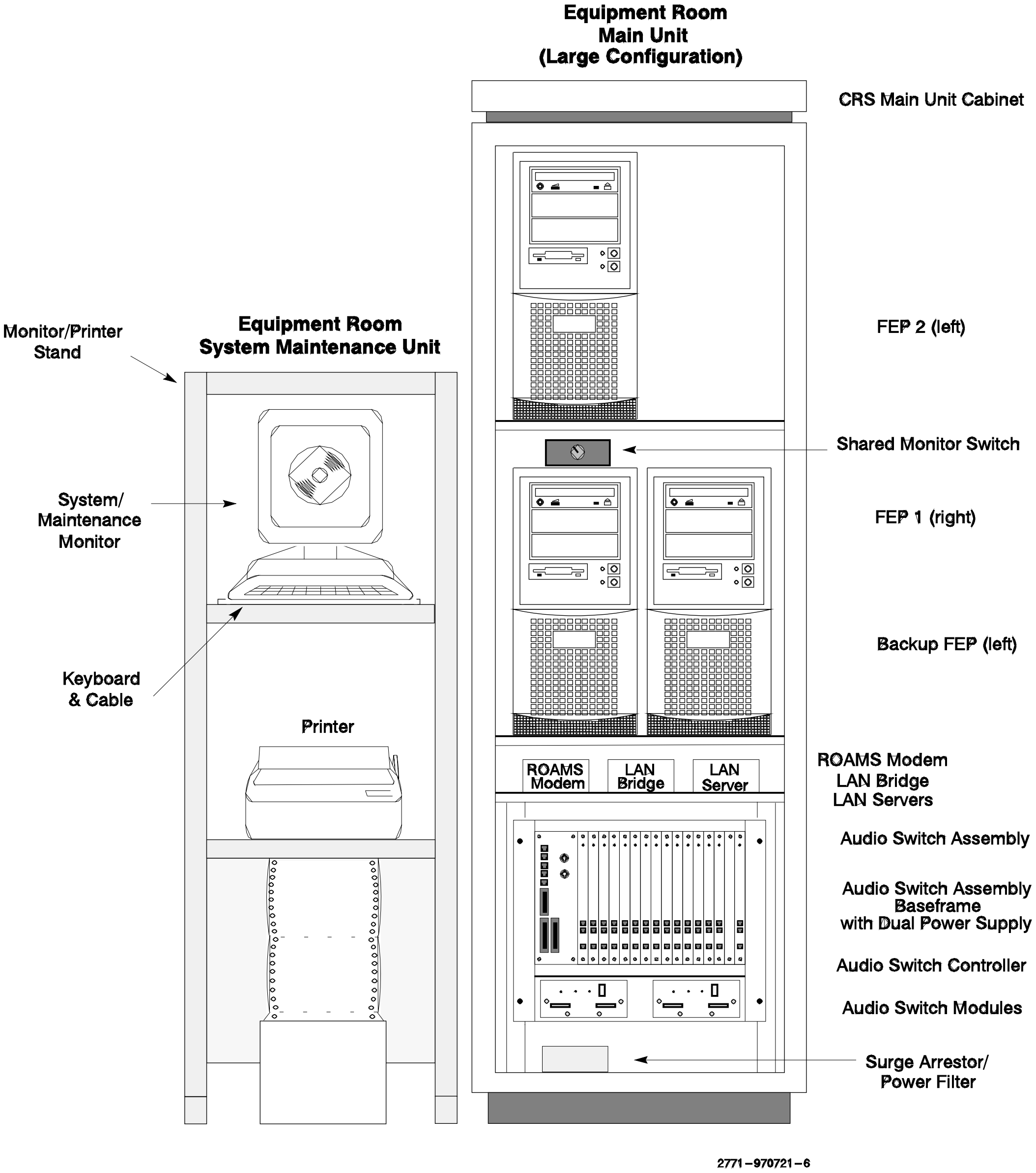

Equipment Room
Main Unit
(Large Configuration)
CRS Main Unit Cabinet
FEP 2 (left)
Shared Monitor Switch
FEP 1 (right)
Backup FEP (left)
ROAMS Modem
LAN Bridge
LAN Servers
ROAMS Modem
LAN Bridge
LAN Server
Audio Switch Assembly
Audio Switch Assembly Baseframe with Dual Power Supply
Audio Switch Controller
Audio Switch Modules
Surge Arrestor/ Power Filter
Monitor/Printer Stand
Equipment Room System Maintenance Unit
System/ Maintenance Monitor
Keyboard & Cable
Printer
2771–970721–6

Figure 3. Console Replacement System - Equipment Room

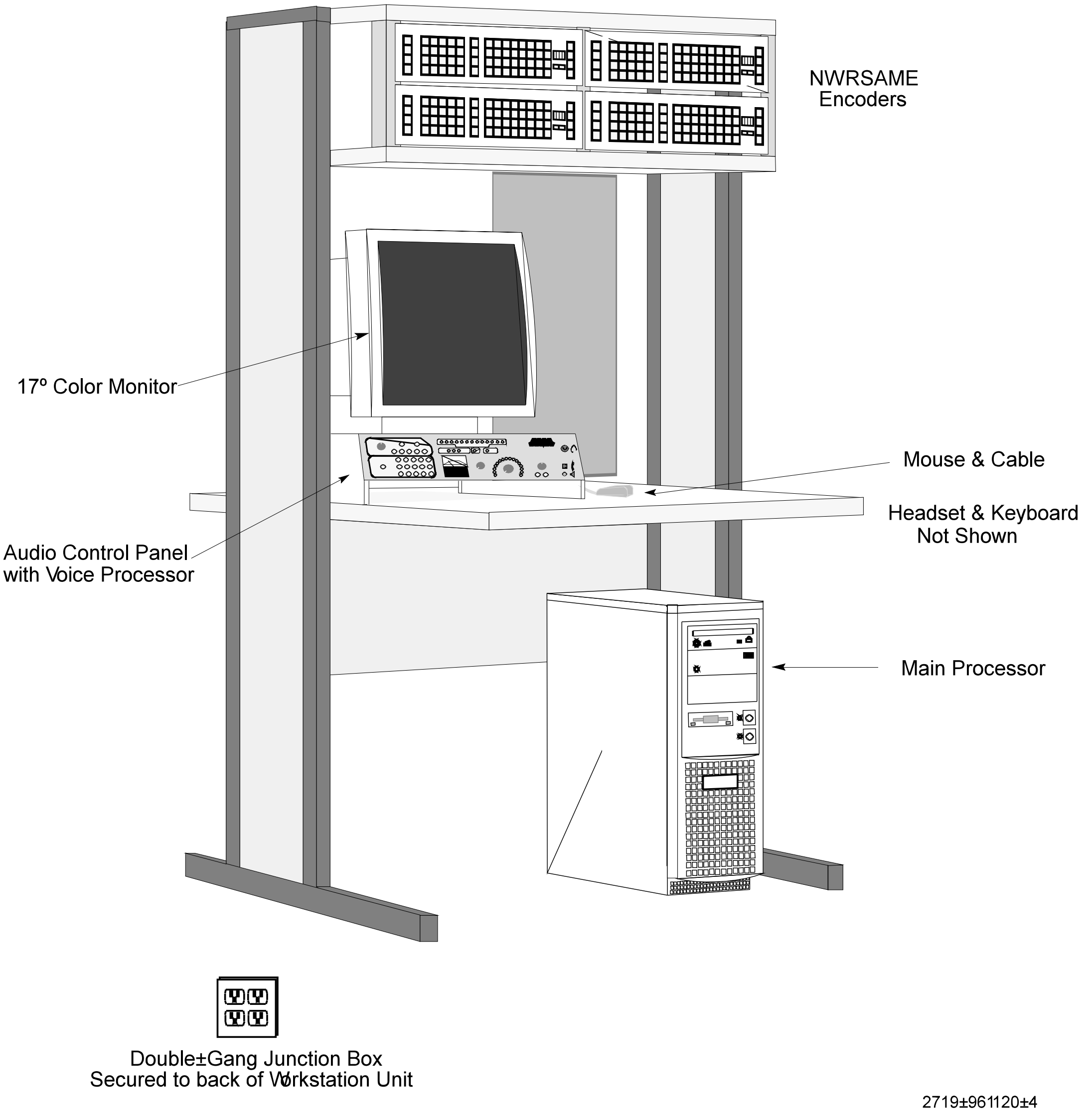

NWRSAME
Encoders
17º Color Monitor
Mouse & Cable
Headset & Keyboard
Not Shown
Audio Control Panel
with Voice Processor
Main Processor
Double±Gang Junction Box
Secured to back of Workstation Unit
2719±961120±4

Figure 4. Console Replacement System - Operators' Environment

3.2.1.3. Power up System Maintenance Console

The power ON/OFF switch and power LED indicator for the system maintenance console are located on the front of the enclosure (lower right side). To power up the console, press the ON/OFF switch. A green power LED will then be lit indicating that power is on.

3.2.1.4. Power up Audio Switching Assembly

Power to the audio switching assembly is applied when the AC power cables are connected from the dual power supplies to the audio switching assembly AC inputs and the power ON/OFF rocker switches on the power supplies are activated. The AC inputs are located on the lower left back panel of the audio switching assembly.

3.2.1.5. Power up ROAMS Dial-up Modem

The power ON/OFF rocker switch for the ROAMS dial-up modem is located on the top of the enclosure (left side). To power up the modem, activate the ON/OFF rocker switch. The modem will perform a self-test. At completion of the self-test, the green power LED on the front panel will then be lit.

3.2.1.6. Power up LAN Servers

The power ON/OFF rocker switch for the LAN Server is located on the rear panel of the enclosure (right side). To power up the LAN Server, activate the ON/OFF rocker switch. Following powerup, the server will perform a Power On Self Test sequence. If no errors are detected, the 7-segment LED will display "AC" and then all LEDs will go on in sequence.

3.2.1.7. Power up Front-End Processors

The power ON/OFF switches and power LED indicators for the front-end processors (FEPs) are located on the front of the enclosures (center right). To power up the FEPs, press the ON/OFF switches. A green power LED on each FEP will then be lit indicating that power is on. The FEPs can be powered up in any sequence.

Following activation of the power switches, the FEPs will go through a memory check, will display the system configuration, as recognized by BIOS, and will then boot the embedded operating system. (Please **note** that since the FEPs share a common console through the shared console switch, the monitoring of the power-on and boot process is limited to the FEP currently switched in. The remaining FEPs will boot regardless of whether the monitor is switched in to a particular FEP.)

The file system will then be checked automatically. During the file system check, various messages will appear on the console screen relating to the system check and to the system processes being executed.

At the completion of the boot process, the console will display the login prompt.

The FEPs having the CRS application as part of the embedded operating system will automatically initialize to a pre-set level and then wait for final startup commands from the MP.

3.2.2. Operator's Environment

3.2.2.1. Power up Surge Suppressors

The surge suppressors are secured to the back panels of the CRS Workstation assemblies. The power ON/OFF rocker switches and power LED indicators for the surge suppressors are located on the front of the enclosures. To apply power to the surge suppressors, activate the ON/OFF rocker switches. A green power LED will then be lit indicating that power is on.

3.2.2.2. Power up NWRSAME Encoders

The NWRSAME encoders are powered up as soon as the 115 VAC power packs have been connected to the surge suppressor and to the phone jacks of the encoders. The encoder phone jack is located on the left rear of the encoder circuit card and labeled "J1". There is no power switch for the encoders.

Once the jack has been plugged into the encoder, the left side single LED on the keyboard will display a "0" that blinks at a slow rate with no other LEDs on.

3.2.2.3. Power up Audio Control Panels

The power switches for the Audio Control Panels (ACPs) are located on the rear panel (in the lower left) of the ACP enclosure. To power up the ACPs, toggle (or "flip") the power switch.

During powerup, the audio control panel will initiate a self diagnostics routine during which the LEDs will be activated and then extinguished.

3.2.2.4. Power up Workstation Monitors

The power ON/OFF switches and power LED indicators for the workstation monitors are located on the front of the monitor enclosures (lower right side). To power up the monitors, press the ON/OFF switches. A green power LED on each monitor will then be lit indicating that power is on.

3.2.2.5. Power up Main Processors

The power ON/OFF switches and power LED indicators for the main processors (MPs) are located on the front of the enclosures (center right). To power up the MPs, press the ON/OFF switches. A green power LED on each MP will then be lit indicating that power is on. The MPs can be powered up in any sequence.

Following activation of the power switches, the MPs will go through a memory check, will display the system configuration, as recognized by BIOS, and will then boot the UNIX operating system.

The file systems will then be checked automatically. During the file system checks, various messages will appear on the workstation screen relating to the system check and to the system processes being executed.

At the completion of the boot process, the workstation monitor will display the user log-on screen.

The MPs are now ready for the CRS application software to be initialized. (Please **note** that whenever the MPs are powered up and booted, they "move" automatically through the boot process to the multi-user mode without operator intervention.)

3.2.2.6. Power up Standalone VIP and Monitor

The power ON/OFF switch and power LED indicators for the standalone VIP are located on the computer front panel (in the center). The power ON/OFF switch for the monitor is located on the front of the monitor enclosure (lower right side).

Power up the monitor and then the VIP by pressing the respective power switches.

Following activation of the VIP power switch, the VIP will go through a memory check, will display the system configuration as recognized by BIOS, and will then boot the Linux operating system.

3.3. CRS Powerdown Procedures

To power down CRS, you must first "gracefully" shut down the CRS application software and then the UNIX operating system. This ensures that all CRS and UNIX processes are terminated and all files are closed in a non-destructive manner.

To shut down the CRS application software, you must access and then execute the "Stop System" submenu option, which is available under the CRS **System** menu. (This can be done from either Operator Terminal.) To avoid duplication, this submenu option is discussed in paragraph 3.6.2.4 along with the other **System** menu options.

To shut down the UNIX operating system, log in as "root" from the "Master" MP console, double click the Shutdown icon in the UnixWare Desktop, click the *Shutdown* button in the confirmation window, and then click the *Exit* button to exit the UnixWare Desktop and commence the UNIX shutdown.

Once you have gracefully shut down both the CRS application software and the UNIX operating system, you can begin powerdown of the system by first powering down the MPs and then the FEPs. When powering down the MPs, begin with the "Master" and then do the "Shadow". After successfully powering down the MPs and FEPs, you can then power down the remaining CRS hardware devices via their respective power switches. (If necessary, refer to paragraph 3.2 for location of power switches.)

3.4. Audio Control Panel & Microphone/Headset Description and Use During Backup Live Operations

3.4.1. Technical Description

3.4.1.1. Audio Control Panel

The Audio Control Panel (ACP), shown in Figure 5, is customized to match or replicate CRS man-machine interface (MMI) operations, and it allows you to take control of the CRS during "backup live" operation and perform critical broadcast transmission functions normally available via the CRS MMI. Each of the two operator positions provided with CRS is supplied with an ACP, and the two units operate completely independently of each other.

Each ACP is provided with an operator headset for simultaneous voice recordings and monitor/playback functions. Optionally, the headset can be substituted by a standard telephone handset.

The ACP connects to the collocated main processor with an audio cable and an RS232 serial data cable. In addition, the combined CRS transmitter output monitoring, playback, and backup live functions are supported by two-way audio connections and an I/O control cable to the audio switching assembly in the equipment room. The two interfaces are designed to allow the ACP (and headset) to be relocated to the AWIPS position within the operator environment at some future time.

The ACP has connectors for the operator headset or handset and four GFE NWRSAME Encoders in support of Backup Live broadcast mode.

The key ACP functions are:

- Monitor/Playback channel select, locally and remotely.
- Main processor microphone input level adjustment.
- Operator Earphones audio source, select and adjust.
- Backup Live voice broadcast mode, select and adjust.
- Backup Live NWRSAME plus Alert and Transmitter Transfer Tones, select and adjust.
- Audible Alarm, sound and reset.

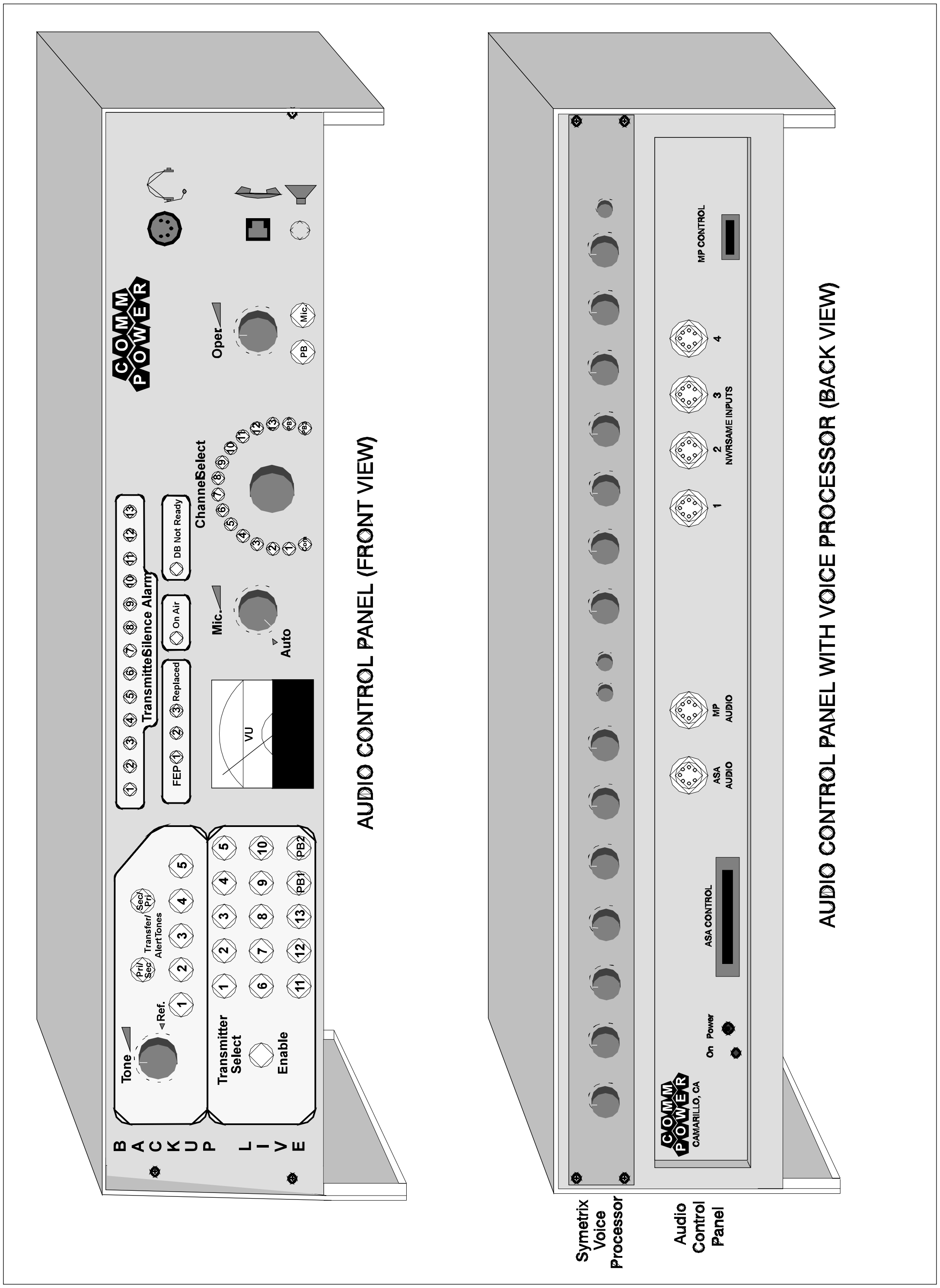

2777±961120±4
AUDIO CONTROL PANEL (FRONT VIEW)
B A C K U P
L I V E
Tone
Ref.
Pri/Sec
Transfer/ Alert Tones
Sec/Pri
1
2
3
4
5
Transmitter Select
Enable
6
7
8
9
10
11
12
13
PB1
PB2
Transmitter Silence Alarm
FEP
Replaced
On Air
DB Not Ready
VU
Mic.
Auto
Channel Select
Oper
PB
Mic.
COMM POWER
AUDIO CONTROL PANEL WITH VOICE PROCESSOR (BACK VIEW)
ASA CONTROL
ASA AUDIO
MP AUDIO
NWR SAME INPUTS
MP CONTROL
On
Power
CAMARILLO, CA
Symetrix Voice Processor
Audio Control Panel

Figure 5. CRS Audio Control Panel

- Transmitter Silence Alarm, display and coordinate with MP.
- Backup FEP in use, display and alert.
- Database Not Ready Indicator.
- "On Air" indicator.

Figure 5 shows the layout of all controls and indicators, and the following paragraphs describe how these controls and indicators support the above listed key ACP functions.

a. Monitor/Playback Channel Select. The rotary selector labeled "Channel Select" allows you to choose one of the 13 transmitter output channels labeled "1", "2", ... , "13" for monitoring purposes, or you can select one of the two designated playback channels labeled "PB1" and "PB2" as part of program preparation, editing, and other verification purposes.

The rotary selector is surrounded by 16 backlit position/ status indicators. These indicators represent channels 1 through 13, PB1, PB2, and Com (for "Intercom"). The indicators are site configurable via the site configuration table on the Main Processor (MP), and therefore the indicators lit represent a given site's allocation of transmitters. The lighting scheme for these indicators is as follows:

- Green represents an available transmitter channel.
- Slow blinking yellow represents a chosen transmitter channel; i.e., yellow is the "pointer indicator" of the rotary selector.
- No illumination represents no transmitter allocation and therefore an un-selectable channel (i.e., the rotary selector skips past the channel).

The rotary selector has no hard stops and will rotate indefinitely. This enables you to change from the PB1 channel to transmitter channel 1 by rotating the switch merely 2 positions in the clockwise direction, as opposed to 13 positions in the counter-clockwise direction.

This indicator is interactive; hence, the MPs ability to control the channel selector is fully utilized during recording and monitor/playback sessions initiated by the MP. The changes performed by the MP are simply displayed by the automatically moving "pointer indicator". Thus, should you select channel 1 (via the CRS user interface software) for the purpose of monitoring, the ACP indicator for channel 1 would automatically change from green to slow blinking yellow indicating this channel selection.

The manual rotary selector on the ACP, therefore, is only necessary during Backup Live or for browsing through the active channels during normal operation.

Under control of the MP, the PB1 channel can (as a test function) also be utilized to monitor the TTS outputs of the Backup Front End Processor (FEP). This enables you to monitor the status of the Backup FEP completely offline and without interrupting the active FEPs.

The selected audio signal is automatically made available to the other ACP controls and functions as discussed below in items b and c. Also, as described under item g below, the ACP transfers the transmitter silence alarm status of all 13 CRS transmitter outputs to the MP.

b. Main Processor Audio Input Source. The MP source selection is performed by the ACP, but under computer control of the MP.

For voice recording, you can adjust the microphone input signal on the "Mic." volume control, and if a monitor/playback channel is connected, you can verify proper audio output levels via the graphic VU meter depicted on the MP's user interface.

The microphone input level fed to the MP is manually adjustable on the "Mic." volume control or automatically by switching the "Mic." volume control to the "Auto" position. A positive "click" is felt when this mode is entered.

The selected audio signal's amplitude is presented and displayed on the operator display monitor by way of the "VU" Meter.

Please **note** that the two microphone connections operate mutually exclusively. By engaging the XLR type headset connector, the handset microphone is disabled from use.

c. Operator Headset Audio Volume/Input Source. Two pushbuttons labeled "Mic." and "PB" allow you to monitor either the selected monitor/playback channel ("PB" position), or to listen to your own voice via the microphone ("Mic" position).

The volume for both audio source signals can be regulated via the volume control labeled "Oper.", enabling the headset volume to be adjusted to a comfortable level.

d. Backup Live Voice Broadcast Mode. Fifteen discrete pushbuttons ("1", "2", "3", "4", "5", "6", "7", "8", "9", "10", "11", "12", "13", "PB1", and "PB2") grouped as an array within the "Backup Live" label area (specifically, to the right of the "Transmitter Select" label) allow you to pre-select the channels to be included in a backup live voice broadcast. Any and all channels can be selected, including the two playback channels (PB1 and PB2) which are not normally connected to transmitter outputs.

It is not possible for you and another operator to choose the same channel simultaneously from the two ACPs. The transmitter channels are assigned on a first-come, first-served basis, and confirmation of the chosen channels is indicated by a green illumination of the corresponding indicator(s).

A separate "Enable" pushbutton (also in the "Backup Live" label area) initializes the backup live voice mode on the selected channels. The volume control labeled "Mic." adjusts the audio signal as displayed by the VU meter, and the "Auto" position provides (optional) automatic level control. A mechanical click confirms that the "Auto" position has been entered.

To adjust the audio level prior to going live on transmitter outputs, you can pre-select a playback channel (PB1 or PB2) for such verification and possible adjustment.

e. Backup Live Alert Tones, Transmitter (Tx) Transfer Tones, and NWRSAME. A pair of pushbutton switches (labeled "Pri/Sec" and "Sec/Pri") within the "Backup Live" label area allow you to send the tone pair to effect a switch from a primary to a secondary transmitter, or from a secondary to primary transmitter respectively. Similarly, five pushbuttons (labeled "1", "2", "3", "4", and "5") directly below the "Pri/Sec" and "Sec/Pri" pushbuttons allow you to send any of five different alert tones. (All tones can be defeated via a row of dip switches inside the ACP. Refer to setup procedures in Section 2.1 of the ACP Equipment Manual.)

The corresponding volume control labeled "Tone" in the "Backup Live" label area adjusts the audio signal for the tones as displayed by the VU meter.

Four GFE NWRSAME encoder units with manual programming capabilities will, if connected to the provided ACP interfaces, output a coded NWRSAME message to the selected transmitter output channel(s) under operator control.

You can select the required NWRSAME message on the encoder keyboard and then press the transmit button on the unit when ready to release the coded sequence of FSK modulated tones. The actual transmission of the NWRSAME codes can be monitored via the headset and coordinated with your voice broadcast.

The connection to the ACP includes the audio signal and a strobe signal. The encoder units also include output volume controls. The ACP handles the four NWRSAME units on a "first come, first served" basis. Therefore, only one NWRSAME message is output from the CRS at a time.

All of the above NWRSAME, alert, and Tx transfer tones are output on the pre-selected backup live channels. If tone output is to be on other channels than speech output, you (the operator) are responsible for making that choice.

Please **note** that the ACP must be placed in Backup Live mode or one of the playback channels must be activated in order for the ACP to output any tones.

f. Audible Alarm. The audible alarm has its own reset control integrated with the rotary selector so that it can be muted whenever you become aware of an alarm condition. The alarm signal is also superimposed on the audio input to the headset, so that you will be made aware of the alarm condition when wearing the headset. The audible alarm is activated when alarm conditions occur and are reported to the ACP. These conditions are reported to the ACP by the ASA (over the control cable) and by the MP (over the serial data interface cable). The alarm is muted when the ACP is switched into Backup Live mode.

g. Transmitter Silence Alarm. Thirteen indicators labeled "1", "2", "3", "4", "5", "6", "7", "8", "9", "10", "11", "12", and "13" in the "Transmitter Silence Alarm" label area indicate detection of a silence alarm condition at any of the 13 transmitters.

If you and/or the system expects a pause of more than 10 seconds in a given broadcast sequence (such as a NWRSAME header message gap), an appropriate mask bit may be set (manually or automatically) by the MP, shown by a green indicator on the transmitter silence alarm display. When the ACP recognizes the (false) alarm condition, it will indicate the condition(s) on the panel by changing the illumination of the indicator from green to slow blinking yellow, rather than by activating the audible alarm.

A timeout function in the ACP eliminates the possibility of MP malfunctions leaving the ACP in a state where silence alarms are masked off on a permanent basis.

In case of a true transmitter silence alarm condition, the audible alarm is activated, the corresponding visual indicator is illuminated (fast blinking) red, and the status is transferred to the MP.

h. Backup FEP in Use. Three indicators (labeled "1", "2", and "3") in the "FEP Replaced" label area serve as a reminder that if the backup FEP is in use (i.e., operating in place of a failed FEP identified by one of the indicators), the replaced FEP must be returned to service to ensure required system reliability. The left indicator shows replacement of FEP1, the center indicator shows replacement of FEP2, and the right indicator shows replacement of FEP3 in a maximum CRS configuration.

i. Database Not Ready Indicator. An indicator labeled "DB Not Ready" is extinguished when the CRS application software has determined that the database on the "Shadow" processor is synchronized with the database on the "Master" processor, i.e., it is safe to change the modes (Master/Shadow) of the main processors without loss of data.

j. "On Air" Indicator. An indicator labeled "On Air" is illuminated anytime your voice is in direct connection with the transmitter output channels. This occurs not only in backup live, but also during emergency override, where the MP selects the transmitter output channels on which your voice is broadcast live.

3.4.1.2. Headset

The SM2, which is furnished with CRS and shown in Figure 6, is a self-adjusting headset with dual enclosed ear receivers and an attached broadcast-quality boom-mounted microphone. The SM2 plugs into the XLR connector marked "headset", which is located on the front of the ACP in the top right-hand corner (see Figure 5). Please **note** that a handset can be obtained and used in lieu of the headset at NWS sites. The handset plugs into the RJ11 connector marked "handset" (also located on the front of the ACP directly below the headset connector).

The microphone in the SM2 is a close-talking uni-directional dynamic type with a response from 50 to 15,000 Hz. Because of its noise-reducing character, it discriminates in favor of close sounds and against distant sounds. The microphone boom pivots through 155° so that the microphone can be correctly positioned at the corner of the mouth either from the left or right side. A locking thumbscrew prevents the microphone from slipping or twisting out of place.

Figure 6. SM2 Headset

3.4.2. Backup Live Operations

The following are the step-by-step procedures for performing backup live operations. This information is provided in the event the CRS software fails completely, and you need to broadcast manually in a backup live mode.

During backup live operations, you (the "operator") will assume full responsibility for and thus will have complete (though "manual") control over the order, timing, and sequencing of all audio transmissions. This will be accomplished by means of the audio control panel (see Figure 5). Weather messages will enter the system in one way, i.e., operator voice input. Weather messages will be output as analog voice transmissions interspersed with appropriate tones and NWRSAME messages from the GFE NWRSAME encoder(s).

To commence backup live operations, you will need to perform the following steps (if necessary, refer to Figure 5):

a. Adjust or verify the audio output level, if desired, by performing the following substeps:

    1. Preselect a playback channel (i.e., PB1 or PB2) by pressing the associated pushbutton within the "Backup Live" label area. The pushbutton will be illuminated green to indicate its selection.

    2. Select the same playback channel via the Channel Select. switch.

    3. Speak into the microphone (while monitoring the audio output via the earphones).

    4. Adjust the volume, as necessary, via the "Mic." volume control. (The corresponding VU meter will reflect the current audio output level as well as any adjustment(s) you decide to make during the playback session.)

b. Select the channels to be included in the backup live voice broadcast by pressing the associated pushbuttons within the "Backup Live" label area (specifically, to the right of the "Transmitter Select" label). The pushbuttons will be illuminated green to indicate their selection.

c. Click the Enable switch to initialize the backup live voice mode on the selected channels.

d. Select for the purpose of monitoring one of the backup live transmitters via the Channel Select. switch.

e. Transmit transfer tones, if required, via the pushbuttons labeled "Pri/Sec" and "Sec/Pri". The Pri/Sec pushbutton will effect a switch from a primary to a secondary transmitter, whereas the Sec/Pri pushbutton will effect a switch from a secondary to a primary transmitter. Adjust volume of tones, if necessary, via the volume control to the left of the transfer/alert tone pushbuttons.

f. Transmit NWRSAME tone(s), if required, via the GFE NWRSAME encoder units. To do so, select the required NWRSAME message(s) on the encoder keyboard(s) and then press the transmit button on the unit(s) when ready to release the coded sequence of FSK modulated tones.

g. Transmit alert tones, if required, by pushing the associated alert tone buttons. Adjust volume of tones, if necessary, via the volume control to the left of the transfer/alert tone buttons.

h. Transmit the backup live voice message by speaking into the microphone.

i. Transmit NWRSAME end tone(s), if required, via the GFE NWRSAME encoder units. To do so, select the required NWRSAME end message(s) on the encoder keyboard(s) and then press the transmit button on the unit(s).

j. Repeat the above steps as necessary for the duration of backup live operations. Of course, attempts should be made concurrently to recover from the CRS software failure as quickly as possible.

3.5. Operator Terminals Logon

The procedures for performing CRS Operator Terminal login are described in paragraph 3.5.2. If your intent is to log into CRS and you are unfamiliar (or need to reacquaint yourself) with CRS windowing concepts, you are encouraged to read paragraph 3.5.1 prior to doing so.

3.5.1. Windows Overview

X Window, called X for short, is a network-based graphics system that was developed at MIT in 1984. It is typically run on workstations with large screens, like the 17-inch color monitor provided with CRS, and allows you to execute multiple programs simultaneously by means of separate, distinct windows.

For CRS these windows will, for the most part, look like the CRS window template shown in Figure 7 and may contain any of the windowing components depicted in the figure, depending, of course, on the window selected and its functionality. This window template and its associated components are discussed at length in the subsequent paragraphs.

3.5.1.1. CRS Window Template

As shown in Figure 7, all windows consist of a frame which, depending on the window selected, may contain as many as three horizontal bars, including the *title bar*, *menu bar*, and *hotkey menu bar*. Directly underneath these bars is the *work area*, which, depending on the window selected, may contain any combination of data input/selection fields and text/list windows (with or without vertical and/or horizontal scrollbars). Directly underneath the work area is the *action area* which, depending on the window selected, may contain any number of pushbuttons. Last but not least, and located directly underneath the work area, is the *status display area*. These components are further elaborated on as follows.

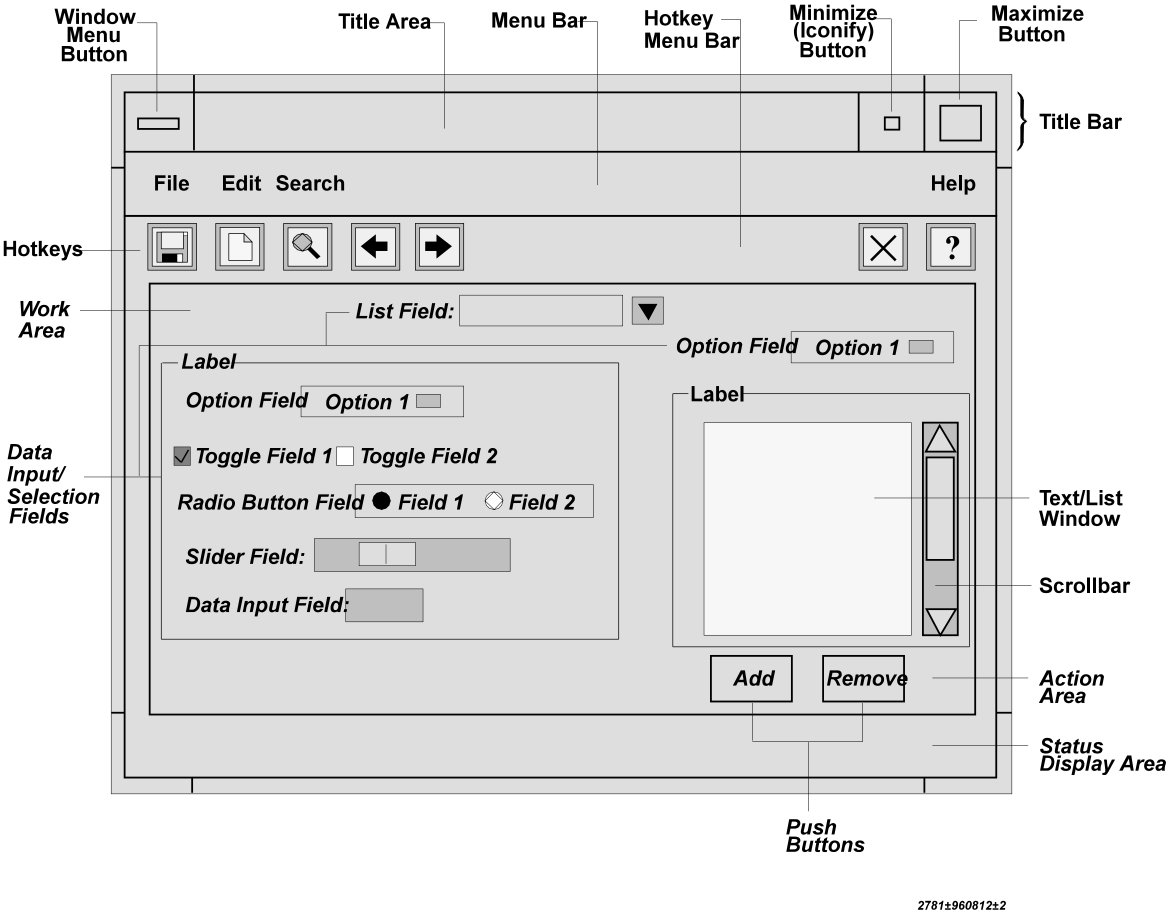

Window Menu Button
Title Area
Menu Bar
Hotkey Menu Bar
Minimize (Iconify) Button
Maximize Button
Title Bar
File
Edit
Search
Help
Hotkeys
?
Work Area
List Field:
Option Field
Option 1
Label
Option Field
Option 1
Label
Data Input/ Selection Fields
☑ Toggle Field 1
☐ Toggle Field 2
Radio Button Field
● Field 1
○ Field 2
Slider Field:
Data Input Field:
Text/List Window
Scrollbar
Add
Remove
Action Area
Status Display Area
Push Buttons
2781±960812±2

Figure 7. CRS Window Template

3.5.1.1.1. Title Bar

The first horizontal bar (spanning the top of the window) is known as the *title bar* (see Figure 7). The center portion of this top edge contains a text description of the window and hence is called the *title area.* The title bar, in addition to providing a text description of the window, may also feature three command buttons, i.e., the *menu* button, the *minimize* (or iconify) button, and the *maximize* button.

The menu button allows you to access a pull-down menu by merely placing the pointer on the button and either clicking or pressing and holding down the first pointer (or mouse) button. The menu, which is shown in Figure 8 and is available from within all CRS windows, features window management submenu options including *Restore*, *Move*, *Size*, *Minimize*, *Maximize*, *Lower,* and *Close*. You can perform any of these submenu options by either selecting via the mouse the desired option or by performing the function key strokes listed to the right of the option. Each of these submenu options is described as follows:

a. Restore. Allows the window to be restored. By clicking the menu item, the window, if maximized, will be restored to its original size.

b. Move. Allows the window to be moved to a new location. By clicking the menu item, the pointer will change to a cross-arrow cursor, which will appear in the center of the window. To move the window, you merely need to move the pointer (which causes the outline of the window to follow the movement) to the desired location and then click the first pointer button. (You can also move a window by clicking on the title bar and then "dragging" the window to a new location.)

c. Size. Allows the window to be sized. By clicking the menu item, the pointer will again change to a cross-arrow cursor in the middle of the window. To size the window, you merely need to move the pointer into any part of the outer window border or corner, upon which the pointer will become a resize cursor, drag or size (via the pointer) the border as desired, and then click the first pointer button.

d. Minimize. Allows the size of the window to be decreased. By clicking the menu item, the window will be decreased to the smallest possible extent or "iconified". (*An icon is a symbol that represents a window in an inactive state.*)

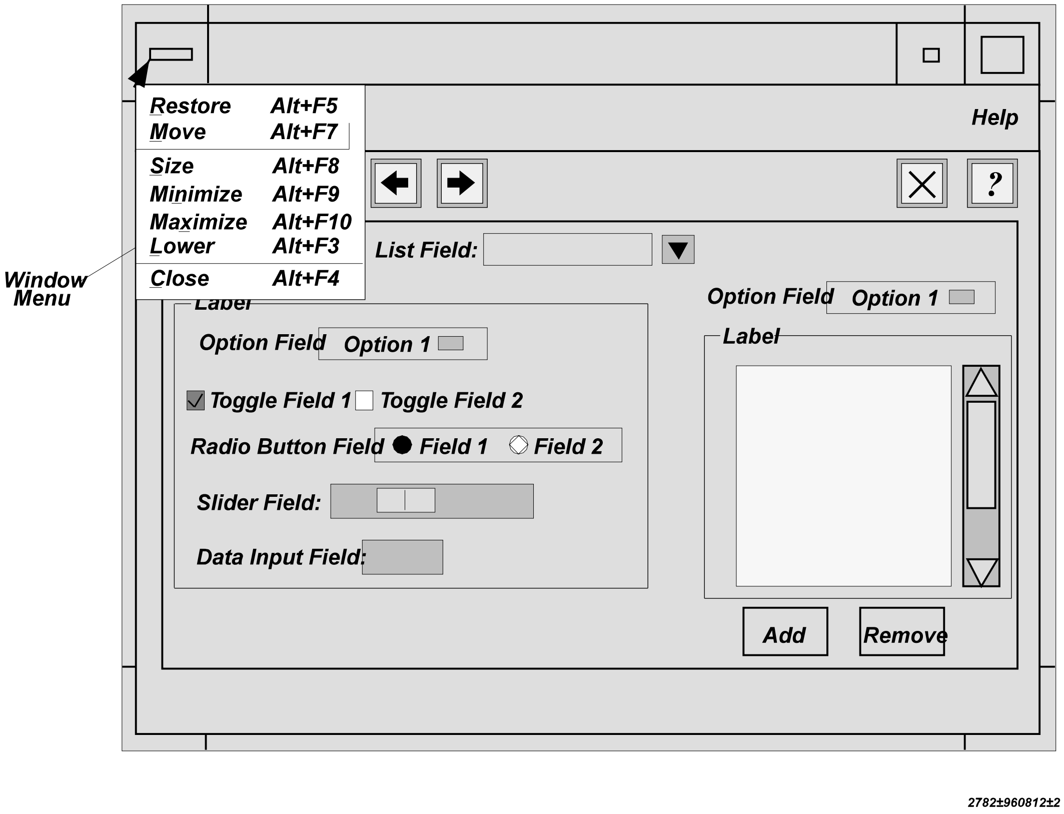

Restore Alt+F5
Move Alt+F7
Size Alt+F8
Minimize Alt+F9
Maximize Alt+F10
Lower Alt+F3
Close Alt+F4
Window Menu
Help
List Field:
Option Field
Option 1
Label
Toggle Field 1
Toggle Field 2
Radio Button Field
Field 1
Field 2
Slider Field:
Data Input Field:
Add
Remove
2782±960812±2

Figure 8. Window Menu

e. Maximize. Allows the size of the window to be increased. By clicking the menu item, the window will be increased to the largest possible extent.

f. Lower. Allows the window to be moved to the bottom of the window stack. By clicking the menu item, the window will be moved to the rear of the current window stack. *(A window stack simply defined means all of the windows currently open.)*

g. Close. Allows the window to be closed. By clicking the menu item, the window will be closed and you will be returned to the previous window in the window stack, i.e., provided there are other windows still open.

Although all CRS windows will display the above-mentioned menu (upon clicking the menu button), some of the menu choices may not be selectable, depending on the given window. For example, neither the ***Status*** window nor the ***Alert Monitor*** window (shown in Figure 12) will allow you to perform a "close" operation (on the window). This is because these particular windows display information critical to CRS system operation and hence are made available at all times.

The minimize and maximize buttons, like the minimize and maximize submenu options described above, allow you to decrease or increase the size of a window to the smallest or largest possible extent, respectively. By clicking the minimize button, the currently displayed window will actually be iconified (which means that it will be converted into an icon). To convert the icon back to a window, you merely need to place the pointer back on the icon and double click, using the first pointer button, after which the restored window will be placed at the top of the window stack.

The maximize button allows you both to enlarge the window to the size of the root window (or to the maximum size allowed), and once it has been enlarged, to convert it back to its original size.

3.5.1.1.2. Menu Bar

The second horizontal bar (located directly underneath the title bar) is known as the *menu bar* (see Figure 7). This bar is referred to as such because it is here where you may access, depending on the window selected, up to four menus to support your window-related operations. These menus include *File*, *Edit*, *Search*, and *Help*.

The File menu allows you to access 5 submenu options, including:

a. New. Allows you to create a new record.

b. Save. Allows you to save or apply your changes depending on the window selected.

c. Save As. Allows you to save the current record under a new name (thereby maintaining the integrity of the originally retrieved record).

d. Delete. Allows you to delete the current record.

e. Exit. Allows you to exit the current record.

The Edit menu allows you to access 4 submenu options, including:

a. Cut. Allows you to highlight and then cut data to buffer for later paste operations.

b. Copy. Allows you to highlight and then copy data to buffer.

c. Paste. Allows you to retrieve data previously cut to buffer via "cut".

d. Clear. Allows you to clear the data field values.

The Search menu allows you to access 3 submenu options, including:

a. Find. Allows you to find a specific database record.

b. Next. Allows you to retrieve the next database record.

c. Previous. Allows you to retrieve the previous database record.

The Help menu allows you to access 3 submenu options, including:

a. On Window. Allows you to obtain information about the operation being performed in the window from which it was selected and thus is referred to as "context-sensitive". Please **note** that the information provided (in response to selecting the On Window option) is identical to that provided when selecting the same function (or "topic") via the Contents option (described in item "b.").

b. Contents. Allows you to display the Contents of the online manual. Upon doing this, you can then select a desired Help topic by placing the cursor (actually a hand icon) over the topic and clicking the mouse. The respective Help information will then be displayed.

c. About CRS. Allows you to obtain information on the current version of the selected window.

For examples of Help windows as well as a discussion on how to invoke, browse within, and close CRS Help, please refer to paragraph 3.6.2.7.

3.5.1.1.3. Hotkey Menu Bar

The third horizontal bar (located directly underneath the menu bar) is known as the *hotkey menu bar* (see Figure 9). It is here where you may find, depending on the window selected, as many as seven "hotkeys" which will enable you to directly activate some of the most often used options available and selectable in the menu bar area. These hotkeys, as shown in Figure 9 and described below, include SAVE, CREATE, FIND, PREVIOUS RECORD, NEXT RECORD, EXIT, and HELP, and they can be activated by merely clicking them (thereby avoiding having to go through any menus/submenus). Those CRS windows containing hotkeys will either contain all seven hotkeys (i.e., database type windows, which require CREATE, FIND, PREVIOUS RECORD, and NEXT RECORD for record creation/access/update operations), or three hotkeys (e.g., configuration type windows). Those windows containing three hotkeys will contain SAVE (although referred to as the APPLY[1] hotkey in these windows), EXIT, and HELP.

a. SAVE. The first or left-most hotkey (in the hotkey menu bar) and featuring an image of a floppy diskette, SAVE allows you to save (or to apply) your changes or data inputs. To use the hotkey, you merely need to click it once you have finished with your data input/update session.

b. CREATE. The second hotkey (in the hotkey menu bar) and featuring an image of a piece of paper with a folded or curled corner, CREATE allows you to create a new record. To use the hotkey, you merely need to click it and then enter the desired record data in the respective fields.

---

[1] *Although the APPLY hotkey is identical to the SAVE hotkey in terms of its icon and location in the hotkey menu bar, its functionality is somewhat different; hence, the difference in hotkey title.*

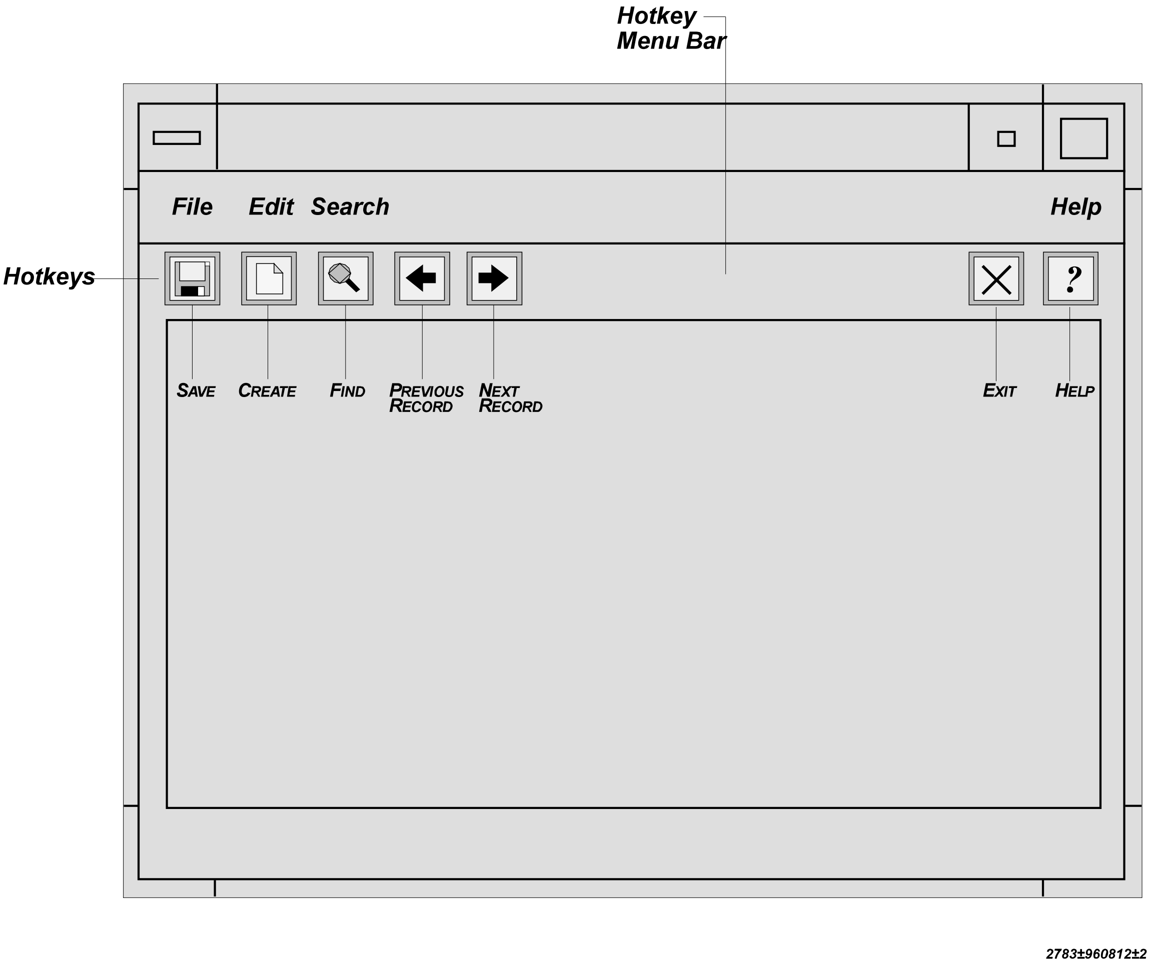

Hotkey
Menu Bar
File
Edit
Search
Help
Hotkeys
SAVE
CREATE
FIND
PREVIOUS
RECORD
NEXT
RECORD
EXIT
HELP
2783±960812±2

Figure 9. CRS Hotkey Menu Bar and Hotkeys

c. FIND. The third hotkey (in the hotkey menu bar) and featuring an image of a magnifying glass, FIND allows you to find a record in a database file. To use the hotkey, you merely need to enter the record name in the appropriate record field (which will be italicized) and then click the hotkey.

d. PREVIOUS RECORD. The fourth hotkey (in the hotkey menu bar) and featuring a left arrow, PREVIOUS RECORD allows you to find the previous record in a database file. To use the hotkey, you merely need to click it, after which the data fields will update to reflect those values associated with the previous record.

e. NEXT RECORD. The fifth hotkey (in the hotkey menu bar) and featuring a right arrow, NEXT RECORD allows you to find the next record in a database file. To use the hotkey, you merely need to click it, after which the data fields will update to reflect those values associated with the next record.

f. EXIT. The sixth hotkey (in the hotkey menu bar) and featuring a large "x", EXIT allows you to exit the window. To use the hotkey, you merely need to click it, after which the currently displayed window will be closed.

g. HELP. The seventh hotkey (in the hotkey menu bar) and featuring a question mark, HELP allows you to obtain information specific to the currently displayed window and the operation being performed. To use the hotkey, you merely need to click it, after which you will be presented with the pertinent online help information. Please **note** that the information displayed upon clicking the HELP hotkey is identical to that displayed upon selecting the On Window Help menu option (described above in paragraph 3.5.1.1.2).

Please **note** that should you ever forget or become confused about the purpose of a hotkey, you merely need to place the pointer on the hotkey, whereupon its function will be displayed in the form of a text string.

3.5.1.1.4. Work Area

The work area (located directly underneath the hotkey menu bar) is available to allow you to perform work associated with the selected menu/submenu option. This area may contain, depending on the window selected, any of the components shown in Figure 7 and described below:

a. List Field. Allows you to select or key in a desired value. To select a value, you merely need to click the list button to the right of the field, after which an associated "pick list" will be presented, and then select the desired value (from the pick-list) by double-clicking it. (Please **note** that list fields are italicized in windows to signify that you can enter a record name in the field and then use the FIND hotkey to search for the record.)

b. Option Field. Allows you to accept the default for the field or select another value by clicking the option button to the right of the default and then selecting the desired value from the option list.

c. Toggle Field. Allows you to select a field by clicking the toggle button to the left of the field. Upon doing this, a check mark will appear in the button and the button will be shaded red in color.

d. Radio Button Field. Allows you to pick or choose one field value over another (or others) by clicking the radio button to the left of the desired field. Upon doing this, the button will be shaded dark in color.

e. Slider Field. Allows you to specify a desired value by placing the pointer on and then moving the slider to select the value. The value relative to the slider position is displayed immediately above the slide area.

f. Data Input Field. Allows you to enter a value for a given field by clicking (to select) the field and then entering the desired value. These fields will provide a certain amount of range/validity checking for you either at the time you enter the value or at the time you apply or save your data. For example, if a data field allows 10 ASCII characters and you attempted to enter 11, the system would beep (rather than allowing you to enter the 11th character). As another example, if you entered "60" in a field whose range is 0 to 59 seconds, this error would go undetected until you applied or saved your data, at which point the error would be communicated to you in the form of an error notification window (see Figure 142). In addition, the data field containing the error would be shaded red in color to alert you to the error. Please **note** that should you receive an error notification via a notification window and are uncertain as to its meaning or its reconciliation, please refer to Section 4 (specifically, paragraph 4.1.4).

g. Text/List Window. Allows you to enter text in a window or create, display, or edit a list of items associated with another selected item (e.g., suites assigned to a particular broadcast program). The window may contain vertical and/or horizontal scrollbars which allow you to scroll vertically and/or horizontally. To do this, you merely need to place the pointer on the scrollbar and then drag it in the direction you wish to scroll.

3.5.1.1.5. Action Area

The action area (located at the bottom of the work area) is where you may find, depending on the window selected, any number of "pushbuttons" which allow you to perform "transitory" functions (i.e., functions directly related but not primary to a given task).

Some pushbuttons, upon clicking them, will cause a secondary window to be presented (see Figure 25), after which you will be required to respond in some simple fashion in order to continue with the given operation. For instance, the *Add* button shown in Figure 25 will, upon clicking it, cause the ***Listening Area List*** window to be displayed (see Figure 26). This type of window is provided to allow you to select and transfer items (in this case, listening areas) from the pick-list to the main window (in this case, the ***Listening Zones*** window). To select an item, you merely need to place the cursor on it and then click the mouse. To select multiple items, you merely need to place the cursor on each item and then press (and hold down) the Ctrl key and click the mouse button.

Once selected, you can transfer the selected item(s) by clicking the *Apply* or *OK* button. The *Apply* button will copy the highlighted item(s) from the displayed pick-list window into the main window and leave the pick-list window open. The *OK* button will also copy the highlighted item(s) but will then close the pick-list window; hence, this is the button of choice throughout this manual. Double clicking a highlighted item will work much the same as clicking the *OK* button, i.e., it will copy the highlighted item and then close the pick-list window.

3.5.1.1.6. Status Display Area

The status display area (located at the very bottom of the window frame) is where you will receive confirmation notification messages indicating success of requested command requests (see Figure 7). (Some windows may display prompts there, as well.) For example, if you made transmitter configuration changes via the ***Transmitter Configure*** window (see Figure 21), you would receive confirmation of these changes in the status display area of the window after clicking the APPLY hotkey. If, however, your command request was unsuccessful as a result of a user error or some other system problem, you would receive an error (or "abnormal") response indication in the form of an error notification window. (These error notifications are discussed at length in Section 4, as mentioned above.)

The status display area will also display for database-related windows the number of records for the particular record type you are viewing or working on (see Figure 24).

3.5.2. Operator Terminal Login

The CRS Login Screen is provided to allow you to log into CRS. To gain access to it, however, you must first click the *Acknowledge* button in the Login Warning Banner, thereby agreeing to the terms and conditions described therein (see Figure 10). The CRS Login Screen will then be displayed. This screen, as shown in Figure 11, contains two fields, i.e., Login ID and Password, as well as four buttons, i.e., *Login*, *Reset*, *Exit*, and *Help*. The fields are provided to allow you to key in your assigned Login ID and Password. For Login ID, there are three acceptable inputs: "oper" (for operator), "admin" (for system administrator), and "maint" (for maintenance technician). The buttons are defined as follows:

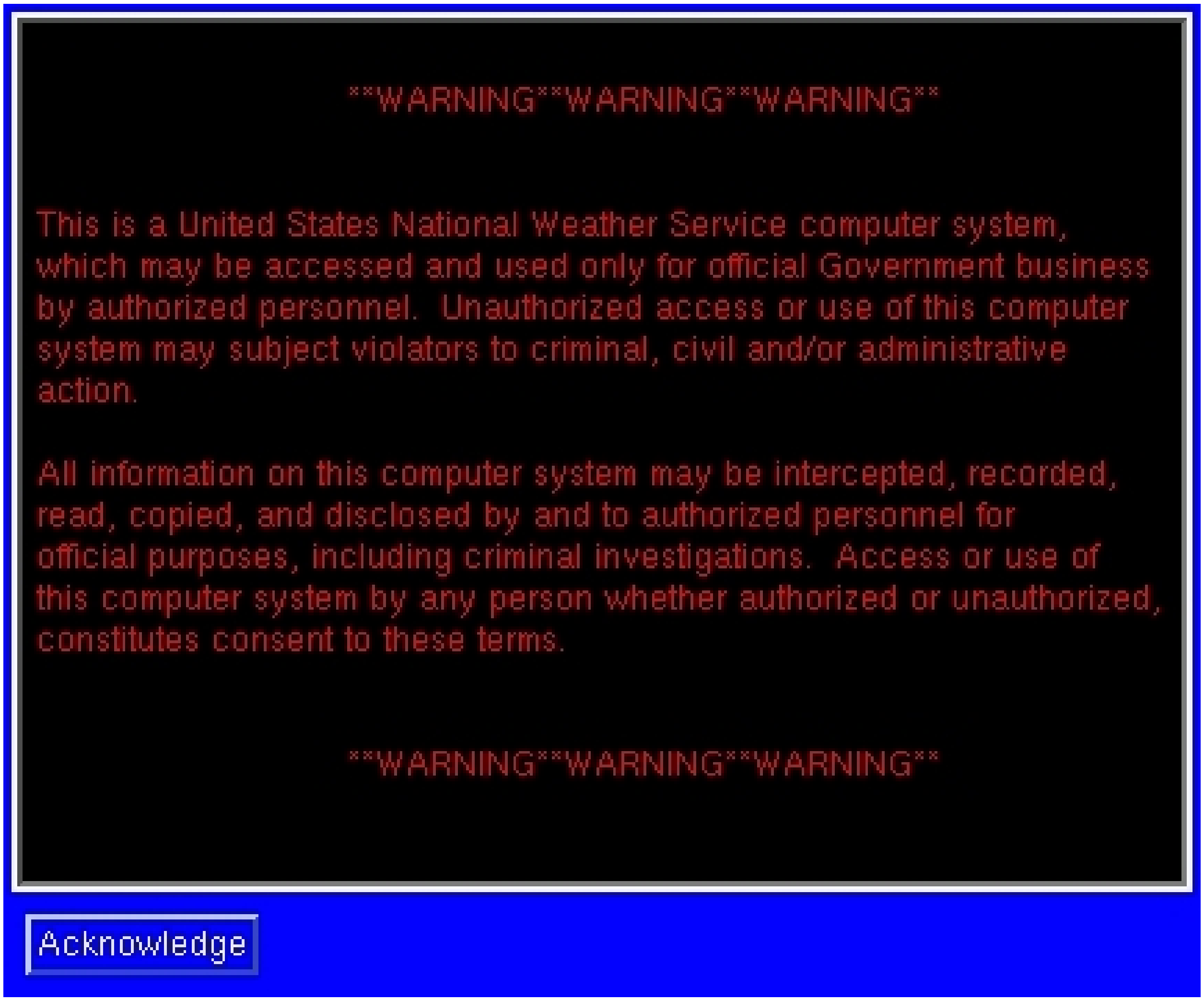
a. *Login*. Clicking this button (or pressing the Alt key and typing an "l") allows you to log into CRS after having typed in your Login ID and Password. (Please **note** that you can also complete the login by merely hitting the return key after typing in your password.)

b. *Reset*. Clicking this button (or pressing the Alt key and typing an "r") removes any text you may have typed in the Login ID and Password fields.

c. *Exit*. Clicking this button (or pressing the Alt key and typing an "e") causes X Window to terminate and you to be returned to a character-based Console Login prompt. Further, the Console Login prompt for the "Shadow" processor may disappear. (If this happens, run the "nudge_xdm" script on the OMP processor as "root". If this fails, you will need to reboot and possibly restart the "Shadow" processor.) Because of this, you are discouraged from using the button unless, of course, you have a specific reason for wanting to terminate X Window.

d. *Help*. Clicking this button (or typing an "h" for help) results in the display of help information pertinent to the CRS Login Screen and login operation.

Upon entering your Login ID and Password and then hitting the return key (or clicking the *Login* button), you will be presented with the CRS Main Display (see Figure 12). This display is further described in paragraph 3.5.2.1.



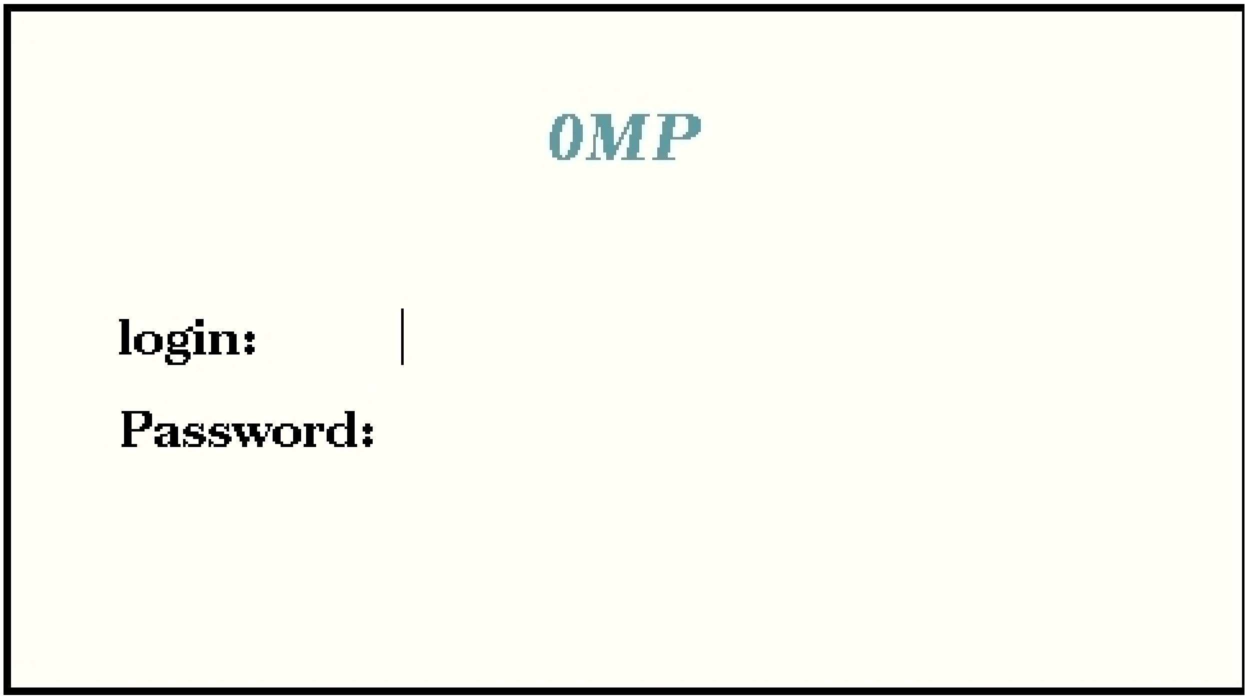
WARNINGWARNING**WARNING**

This is a United States National Weather Service computer system, which may be accessed and used only for official Government business by authorized personnel. Unauthorized access or use of this computer system may subject violators to criminal, civil and/or administrative action.

All information on this computer system may be intercepted, recorded, read, copied, and disclosed by and to authorized personnel for official purposes, including criminal investigations. Access or use of this computer system by any person whether authorized or unauthorized, constitutes consent to these terms.

WARNINGWARNING**WARNING**

Figure 10. CRS Login Warning Banner



OMP

login:

Password:

Figure 11. CRS Login Screen

3.5.2.1. CRS Main Display

The CRS Main Display, which is presented upon successfully logging into CRS (see Figure 12), consists of four main windows, i.e., ***CRS Menu*** (untitled though implied), ***Status***, ***Alert Monitor***, ***Synthetic Speech Override***[2], and a supporting window, i.e., ***Message Monitor***, which collectively provide you with an intuitive and informative interface into the system. The four main windows and their functions are further described in paragraphs 3.5.2.1.1 through 3.5.2.1.4. The ***Message Monitor*** window, which is used to alert you to UNIX error messages and is presented in an iconified state upon logging in (and remains so until a UNIX error occurs), is described in paragraph 4.2.

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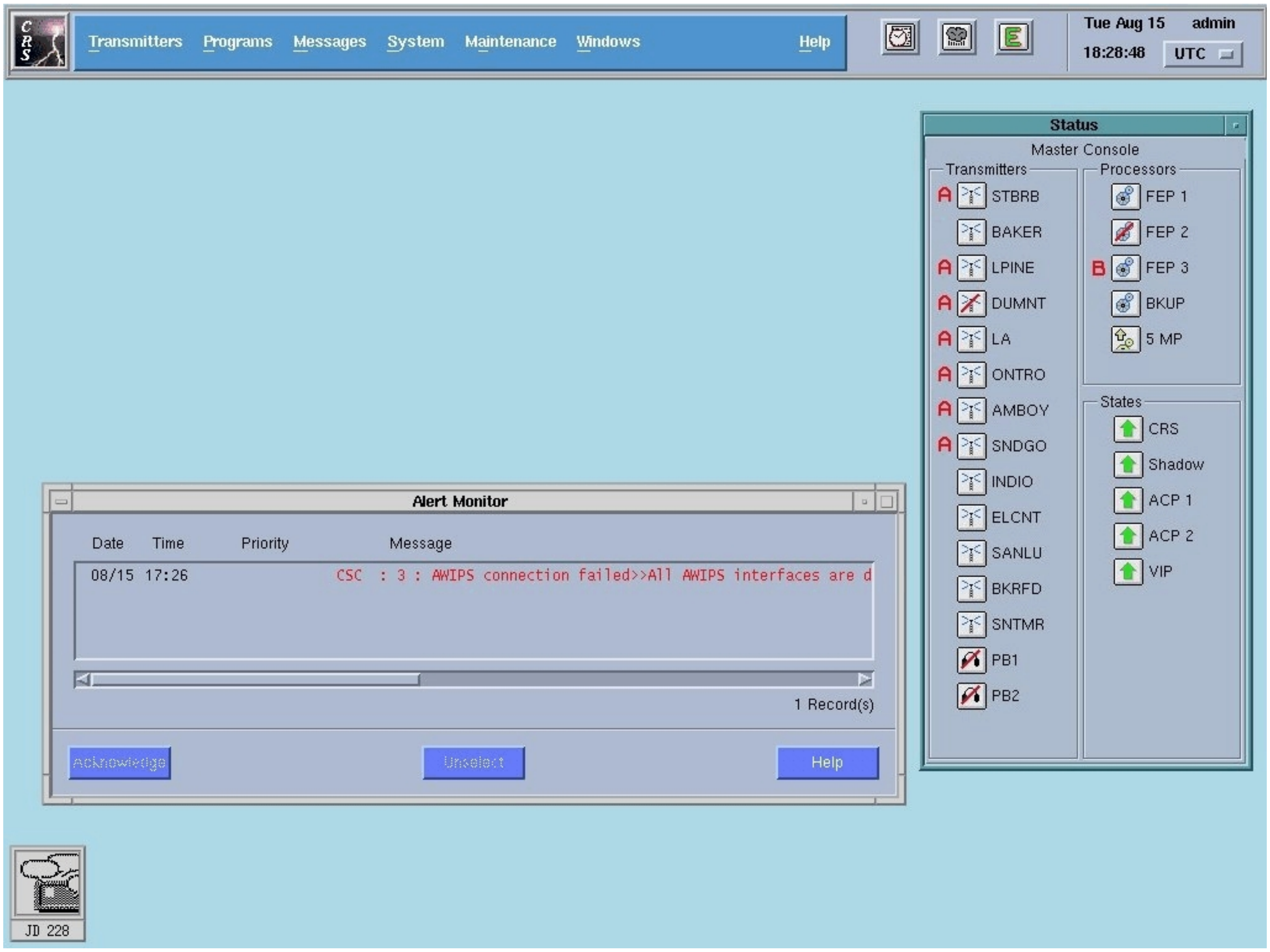
[2] *The* ***Synthetic Speech Override*** *window will be displayed only if there are "pending" AFOS/AWIPS conversion messages. Once displayed, it will remain on top of all other windows in order to give you the opportunity to record ("digitize") or accept ("synthesize") the messages before broadcasting them. See paragraph 3.5.2.1.4.*


CRS
Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
18:28:48
UTC
Status
Master Console
Transmitters
A STBRB
BAKER
A LPINE
A DUMNT
A LA
A ONTRO
A AMBOY
A SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2
Processors
FEP 1
FEP 2
B FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
Alert Monitor
Date
Time
Priority
Message
1 Record(s)
Acknowledge
Unselect
Help
JD 228

```
08/15  17:26              CSC  : 3 : AWIPS connection failed>>All AWIPS interfaces are d
```

Figure 12. CRS Main Display

3.5.2.1.1. CRS Menu

The ***CRS Menu*** window, which is located at the top of the screen and is available from that location at all times, consists of three functional components: *CRS Main Menus*, *CRS Main Hotkeys*, and *CRS Time/Date Display.* Each of these is described as follows:

a. CRS Main Menus. The CRS Main Menus are provided at the top of the screen (to the immediate right of the CRS logo) and allow you to easily select and perform necessary CRS functions, all of which are accessible via pull-down menus. These menus, which include **Transmitters**, **Programs**, **Messages**, **System**, **Maintenance**, **Windows**, and **Help**, are described in Table 1 along with references to paragraphs describing the step-by-step procedures for performing their associated submenu options. (Please **note** that some of these submenu options are "readable" but not "writeable" or "executable" to the CRS site operator, whereas others are not accessible at all to the CRS site operator. (These submenus are footnoted in Table 1.) This is because these particular options relate directly or exclusively to system administration and/or maintenance tasks and hence are available to the CRS system administrator and/or maintenance technician only. For menu-by-menu access privileges for the three classifications of CRS users, i.e, system administrator, operator, and maintenance technician, please refer to Appendix IV.)

For the most part, CRS menus lead to submenus which, in turn, lead to windows which relate to (and hence allow you to perform) the selected CRS submenu operation. These windows, when selected, display on top of (or overlay) the CRS Main Display, as shown in Figure 21. Some of these windows, as explained above in paragraph 3.5.1.1.5, contain pushbuttons that, when clicked, lead to secondary windows which also relate to the selected operation. These windows, as shown in Figure 22, display on top of the "parent" window, and the collection of these and any other windows currently open forms the window "stack" described above in paragraph 3.5.1.1.1.

Please **note** that certain secondary windows are common to more than one submenu function. (For example the ***Message Type List*** window shown in Figure 45 is available from within the Broadcast Suites, Message Groups, and Message Association submenu functions.) These windows have been repeated in the SOM (in response to each subsequent figure call-out) so that you won't have to refer to (or look for) an earlier figure.

Table 1. CRS Main Menus and Submenus

Menu/Submenu	Description/Purpose	Paragraph
Transmitter		
• Transmitter Configure[*]	Allows the user to view or edit the parameters for a specified transmitter.	3.6.2.1.1
• Listening Area		
-- Listening Areas	Allows the user to create, view, or edit Listening Area Codes for transmitters.	3.6.2.1.2.1
-- Listening Zones	Allows the user to create, view, or edit Listening Zones.	3.6.2.1.2.2
• Disable Silence Alarm	Allows the user to disable (or "defeat") the silence alarm for any transmitter.	3.6.2.1.3
• Broadcast Cycle	Allows the user to view a real-time display of the broadcast cycle for a specified transmitter or playback channel.	3.6.2.1.4
• ROAMS[*]		
-- ROAMS Data Query/Modify	Allows the user to view and modify ROAMS data set parameters.	3.6.2.1.5.1
-- ROAMS Alarm Titles Setup	Allows the user to set up or modify the alarm name titles and alarm on/off label values per alarm for each transmitter.	3.6.2.1.5.2
Programs		
• Broadcast Program	Allows the user to create, view, or edit broadcast programs.	3.6.2.2.1
• Program Assignment	Allows the user to assign a broadcast program to a transmitter or playback channel.	3.6.2.2.2

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[*] *"Readable only" to CRS site operator.*

Table 1. CRS Main Menus and Submenus (continued)

Menu/Submenu	Description/Purpose	Paragraph
Messages		
• Broadcast Suites	Allows the user to create, view, or edit broadcast suites.	3.6.2.3.1
• Message Types	Allows the user to create, view, or edit message types.	3.6.2.3.2
• Message Groups	Allows the user to create, view, or edit message groups.	3.6.2.3.3
• Message Type Association	Allows the user to assign message types to replace and/or follow other message types.	3.6.2.3.4
• Weather Messages	Allows the user to create, view, or edit weather messages.	3.6.2.3.5
• Weather Message Correction	Allows the user to correct an erred AFOS weather message.	3.6.2.3.6
• Message Components	Allows the user to create, view, or edit message components.	3.6.2.3.7
• Emergency Override	Allows the user to perform an emergency override broadcast.	3.6.2.3.8
• Call-to-Action Priority	Allows the user to prioritize all predefined message types with associated call-to-action messages.	3.6.2.3.9
• Synthetic Speech Override	Allows the user to restore the Synthetic Speech Override window.	3.6.2.3.10

Table 1. CRS Main Menus and Submenus (continued)

Menu/Submenu	**Description/Purpose**	**Paragraph**
System		
• System Status	Allows the user to restore the **Status** window.	3.6.2.4.1
• Alert Monitor	Allows the user to restore the **Alert Monitor** window.	3.6.2.4.2
• Data Verify[**]	Allows the user to begin the data verification process.	3.6.2.4.3
• Start System	Allows the user to start CRS.	3.6.2.4.4
• Stop System	Allows the user to stop CRS.	3.6.2.4.5
• Start/Stop Shadowing	Allows the user to enable/disable database shadowing.	3.6.2.4.6
• Start/Stop Log Printing	Allows the user to enable/disable the CRS log printer.	3.6.2.4.7
• System Reports	Allows the user to display or print predefined system reports.	3.6.2.4.8
• Exit to UNIX	Allows the user to exit the CRS control interface.	3.6.2.4.9

[**] *"No access" to CRS site operator.*

Table 1. CRS Main Menus and Submenus (continued)

Menu/Submenu	Description/Purpose	Paragraph
Maintenance		
• Main Processor Switch	Allows the user to switch an MP to Master or Shadow as well as disable an MP in order to perform corrective or preventative maintenance tasks.	3.6.2.5.1
• Front-End Proc. Switch**	Allows the user to activate the Backup FEP in place of a FEP (switch out) or vice versa (switch in).	3.6.2.5.2
• UNIX Shell**	Allows the user to gain access to a UNIX shell.	3.6.2.5.3
• Date/Time Update**	Allows the user to set the CRS system date and time.	3.6.2.5.4
• Activity Logs	Allows the user to display, print, or copy the CRS activity logs.	3.6.2.5.5
• Initiate/Terminate Logging**	Allows the user to initiate or terminate CRS activity logging.	3.6.2.5.6
• Reset Log Files**	Allows the user to reset the CRS log files.	3.6.2.5.7
• Site Configuration*	Allows the user to configure CRS site parameters.	3.6.2.5.8
• Pronunciation Dictionaries	Allows the user to create or edit dictionaries.	3.6.2.5.9
• Word Pronunciation	Allows the user to create, view, or edit lists of words and their pronunciations.	3.6.2.5.10
• Error Message Format*	Allows the user to display or edit CRS error messages.	3.6.2.5.11
• Database Backup/Restore**	Allows the user to back up or restore data files, message components, dictionary files, and system configuration data to/from hard disk or cartridge tape.	3.6.2.5.12
Windows	Allows the user to (1) obtain a list of currently open windows and (2) select a window from the list and cause it to move to the top of all other currently open windows.	3.7.2.6

Table 1. CRS Main Menus and Submenus (continued)

Menu/Submenu	Description/Purpose	Paragraph
Help		
• On Window	Allows the user to obtain information specific to the CRS Main Display.	3.6.2.7.1
• Contents	Allows the user to obtain information about any CRS function.	3.6.2.7.2
• About (CRS)	Allows the user to obtain information about the entire CRS application such as the developer's name, product name, release number, release date, and copyright message.	3.6.2.7.3
• Help Tips	Allows the user to obtain help information pertaining to the CRS hotkeys.	3.6.2.7.4

b. CRS Main Hotkeys. The CRS Main Hotkeys are located at the immediate right of the CRS Main Menus and like the hotkeys available in other CRS windows (and described above in paragraph 3.5.1.1.3) allow you to quickly select and perform crucial CRS operations (e.g., "Emergency Override Broadcast") without having to go through the main menus. This saves time whenever you have to perform a critical task in which time is of the essence. Hotkeys available (from left to right) include:

1. CRS Broadcast Cycle - contains an image of a clock on top of a piece of paper.
2. CRS Weather Message - contains an image of a rain cloud.
3. CRS Emergency Override - contains a large "E" for emergency.

The windows associated with these hotkeys are described in detail in paragraphs 3.6.2.1.4, 3.6.2.3.5, and 3.6.2.3.8, respectively.

c. CRS Time/Date Display. This window is located in the right-hand corner of the ***CRS Menu*** window and displays the current CRS system time/date in local or UTC format. It also displays the user Login ID (i.e., "oper", "admin", or "maint" (if necessary, see paragraph 3.5.2 for a description of these IDs). The time/date display format can be changed (i.e., from local to UTC or vice-versa) via a pull-down menu available in the time/date display.

3.5.2.1.2. Status

The ***Status*** window is provided to keep you informed of the current status of the CRS system, as well as the mode in which the CRS main unit is operating, i.e., "Master" or "Shadow". As failures, alarms, and/or configuration changes occur, the window will update dynamically to give an accurate picture of the system at the current time. Although the window can be moved, lowered (i.e., positioned behind other currently displayed windows), and iconified, it cannot be closed, making it readily available (and thus apparent) to you at all times. Further, if you choose to iconify it and at some point a change in status occurs, the window will automatically be restored to alert you to the status change.

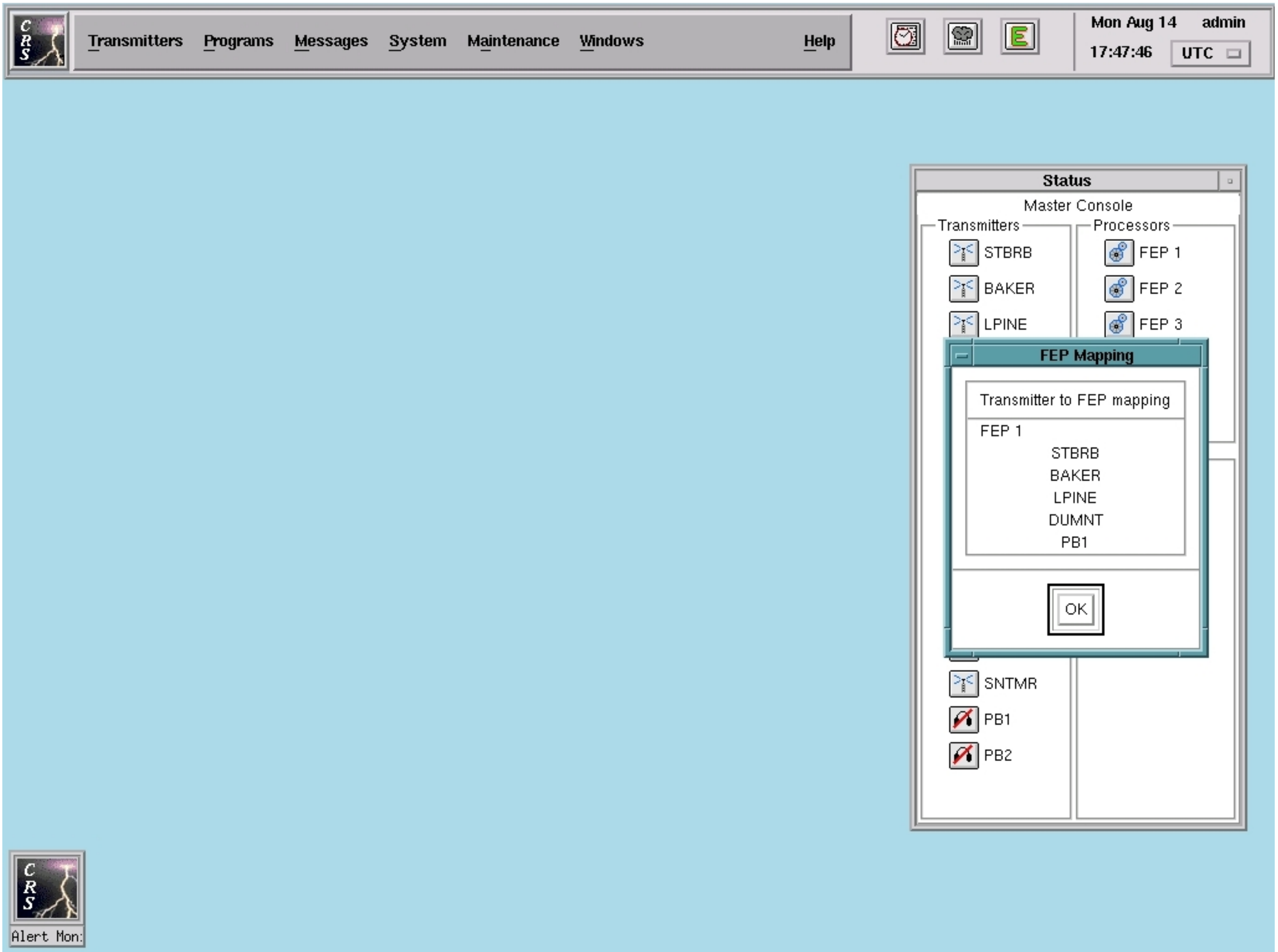
As shown in Figure 12, the ***Status*** window consists of three status areas, i.e., *Transmitters*, *Processors*, and *States*, and each of these areas features a variety of icons and symbols to convey pertinent status-related information. These areas, and their associated icons and symbols, are described as follows:

a. Transmitters Status Area. This area contains transmitter and playback icons, one for each configured in the system. To the left of each transmitter icon, additional icons may appear to indicate status of that transmitter. Two possible status conditions may exist for a transmitter: silence alarm, denoted by a red "A", and silence alarm disabled, denoted by a yellow checkmark. The yellow checkmark is displayed only if the silence alarm has been "masked" (or "defeated") via the ***Disable Silence Alarm*** window (see paragraph 3.6.2.1.3). A red slash through a transmitter/playback icon indicates a disabled transmitter/playback channel, or a transmitter/playback channel that does not have a current schedule assigned to it.

b. Processors Status Area. This area identifies the status of each of the Front End Processors (FEPs) as well as the status of the other (or "Shadow") Main Processor (MP). There is one icon for each FEP and one icon for the "Shadow" MP. If a FEP or MP is disabled or not configured, a red slash will appear through the FEP/MP icon. If a FEP is replaced by a backup FEP, a "B" will be displayed to the left of the FEP (being replaced). Clicking a FEP icon will cause the ***FEP Mapping*** window to be displayed. This window, as shown in Figure 13, will contain a list of the transmitters supported by the selected FEP. (After viewing this information you can close the window by clicking the *OK* button or by clicking the window menu bar button and then selecting the Close submenu option.)

c. States Status Area. This area contains operational status of key CRS components. These components include:

    1. CRS - indicates whether the background tasks that drive the CRS are operational. (These tasks are started and stopped from the CRS menu.) A red arrow pointing downward indicates that these tasks are disabled. An upward green arrow indicates the converse. A yellow circle containing a blinking green arrow pointing upward indicates that CRS is in the initialization state (which occurs during system startup). A yellow circle containing a blinking red arrow pointing downward indicates that CRS is transitioning to the shutdown state. An upward yellow arrow indicates that CRS cannot proceed beyond the initialization state due to a problem with the "primary" FEP. Please **note** that the chances of this occurring are extremely remote and would, more than likely, involve a CRS comprising a "typical" configuration, i.e., one primary and one backup FEP. However, in the event this situation does occur, you will need to switch the backup FEP in place of the failed FEP (see paragraph 3.6.2.5.2). Once the FEP switch has completed, CRS will automatically restart the application (using, of course, the switched-in backup FEP).


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
17:47:46
UTC
Status
Master Console
Transmitters
Processors
STBRB
BAKER
LPINE
FEP 1
FEP 2
FEP 3
FEP Mapping
SNTMR
PB1
PB2
OK
Alert Mon:

Transmitter to FEP mapping

FEP 1
STBRB
BAKER
LPINE
DUMNT
PB1

Figure 13. FEP Mapping Window

2. Shadow - indicates whether the disk shadowing mechanism is enabled. Red and green arrows are used here also.

3. ACP 1 & ACP 2 - indicate whether the two audio control panels are operational. Red and green arrows are used here as well.

4. VIP - indicates whether the Voice Improvement Processor (VIP) and VIP program are operational. A red arrow pointing downward indicates that the VIP program and/or the VIP processor is/are down. An upward green arrow indicates that CRS is up, that the VIP mode is enabled, and that the VIP processor is operational. An upward yellow arrow indicates that the VIP mode is disabled and that CRS will still process VIP messages but that they will either be redirected to the SSO program or be synthesized depending on the disabled mode value (see item "g." in paragraph 3.6.2.5.8). A blinking yellow circle indicates that VIP processing is underway. Clicking a VIP icon with a green upward arrow will cause a ***Question*** (or confirmation) window to be displayed (see Figure 14), allowing you to terminate the VIP process. This feature is provided to enable you to resend the control file to the VIP processor, thereby notifying the VIP as to which MP is the current "Master" and thus resetting FTP processing (for conversion messages) to that particular MP. This should be done if you switched an MP from "Master" to "Shadow" and prior to doing so, the VIP processor was non-operational and/or the VIP mode was disabled.

As an example, the system status depicted in Figure 12 would indicate the following:

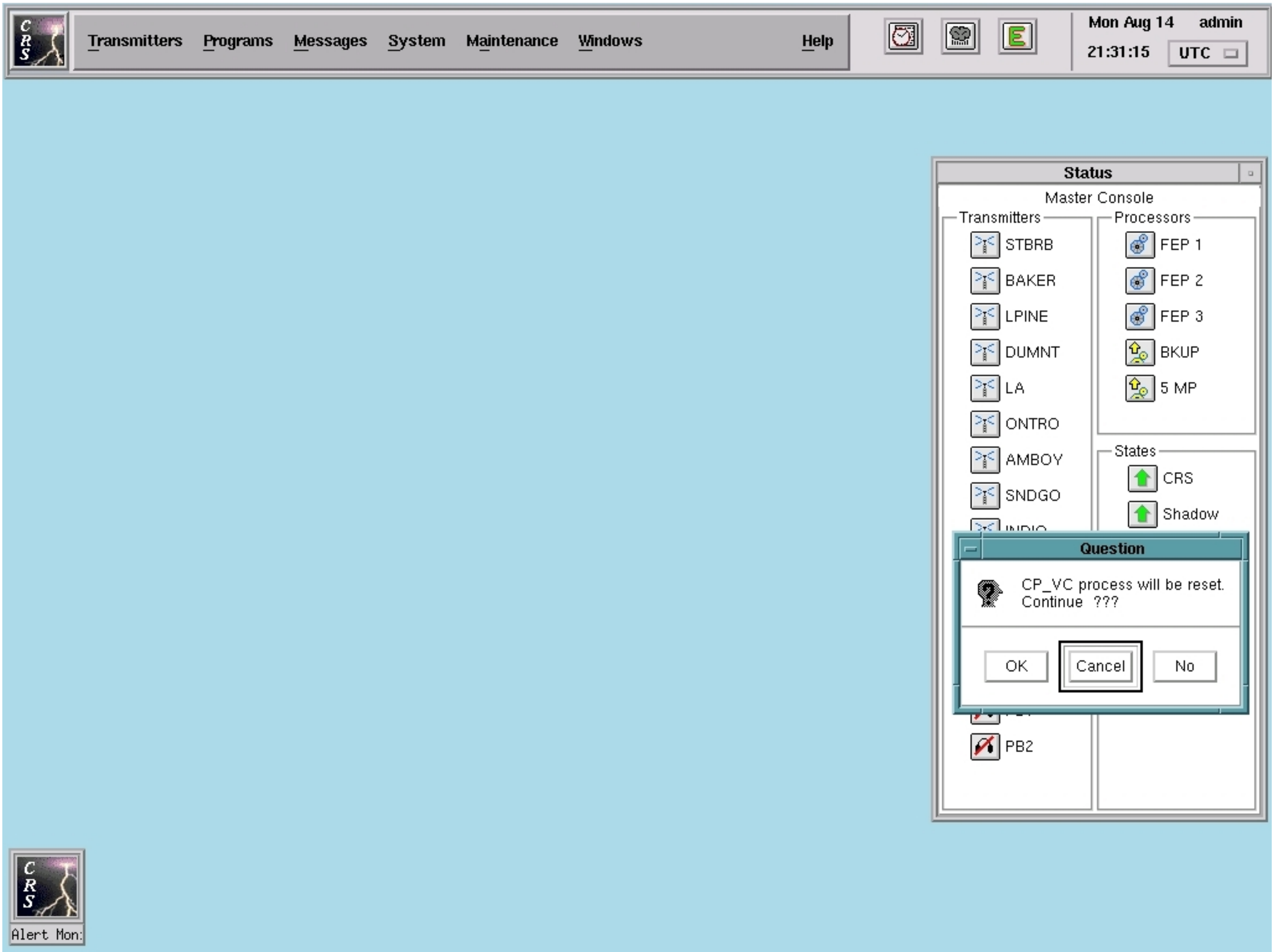
a. Transmitters

1. A silence alarm has occurred on transmitters STBRB, LPINE, DUMNT, LA, ONTRO, AMBOY, and SNDGO (noted via a red "A" for alarm detected).

2. Transmitters ELCNT, SANLU, BKRFD, and SNTMR are all active (noted via a transmitter signal without a slash) and "normal" (no special conditions in effect).

3. The silence alarm has been disabled for transmitters BAKER and INDIO (noted via a yellow checkmark).

4. Transmitter DUMNT has been disabled (noted via a red slash).


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
21:31:15
UTC
Status
Master Console
Transmitters
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
PB2
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
Question
OK
Cancel
No
Alert Mon:

CP_VC process will be reset.
Continue ???

Figure 14. Reset Voice Conversion Process Verification

5. Playback channels (i.e., PB1 and PB2) don't have schedules currently assigned to them (noted via a red slash).

b. Processors

1. FEP 1 is operational (noted via a processor icon without a slash).
2. FEP 2 is disabled (noted via a red slash).
3. FEP 3 is in "standby" mode and has been replaced with the backup FEP (noted via a "B" to the left of the FEP 3 icon and indicating replacement of FEP 3).
4. BKUP is operational and has been switched in to replace FEP 3 (noted via a processor icon without a slash).
5. 5 MP (the "Shadow") is in "standby" mode (noted via a processor icon with a yellow "up" arrow).

c. States

1. CRS is fully operational (noted via a green "up" arrow).
2. Database shadowing is operational (noted via a green "up" arrow).
3. ACPs 1 and 2 are fully operational (noted via green "up" arrows).
4. VIP is fully operational (noted via a green "up" arrow).

In support of this status display, the ***Alert Monitor*** window (described below) displays error messages to further inform you of changing status conditions.

3.5.2.1.3. Alert Monitor

The ***Alert Monitor*** window is provided to alert you of conditions you need to be aware of (e.g., component failure, ROAMS status, etc.). Errors are displayed in a prioritized manner and are acknowledged by highlighting the error (via the mouse) and then clicking the *Acknowledge* button. Once acknowledged the error message will be removed from the display. You can also select multiple messages (for the purpose of acknowledging) by clicking (and holding down) the mouse button and then dragging the cursor in a downward direction (to highlight the messages). The *Unselect All* button is provided to allow you to deselect messages (previously selected). (Please **note** that errors/conditions that may occur and cause an error notification to be queued to the ***Alert Monitor*** window are discussed at length in Section 4.)

Like the ***Status*** window, the ***Alert Monitor*** window can be moved, lowered, sized, and iconified, but never closed, making it readily available to you at all times. Further, if you choose to iconify it and at some point an alert condition occurs, the window will automatically be restored to alert you to this condition. Moreover, if the window is open but behind other currently displayed windows and a high priority alert message is generated, an audible alarm will be activated and the window will automatically move to the front of the other windows and the high priority message will flash.

3.5.2.1.4. Synthetic Speech Override

The ***Synthetic Speech Override*** window is provided to alert you to the arrival of AFOS/AWIPS messages that have been designated for conversion, and to give you the opportunity to either digitize the messages or accept the messages as text (in which case they will be synthesized).

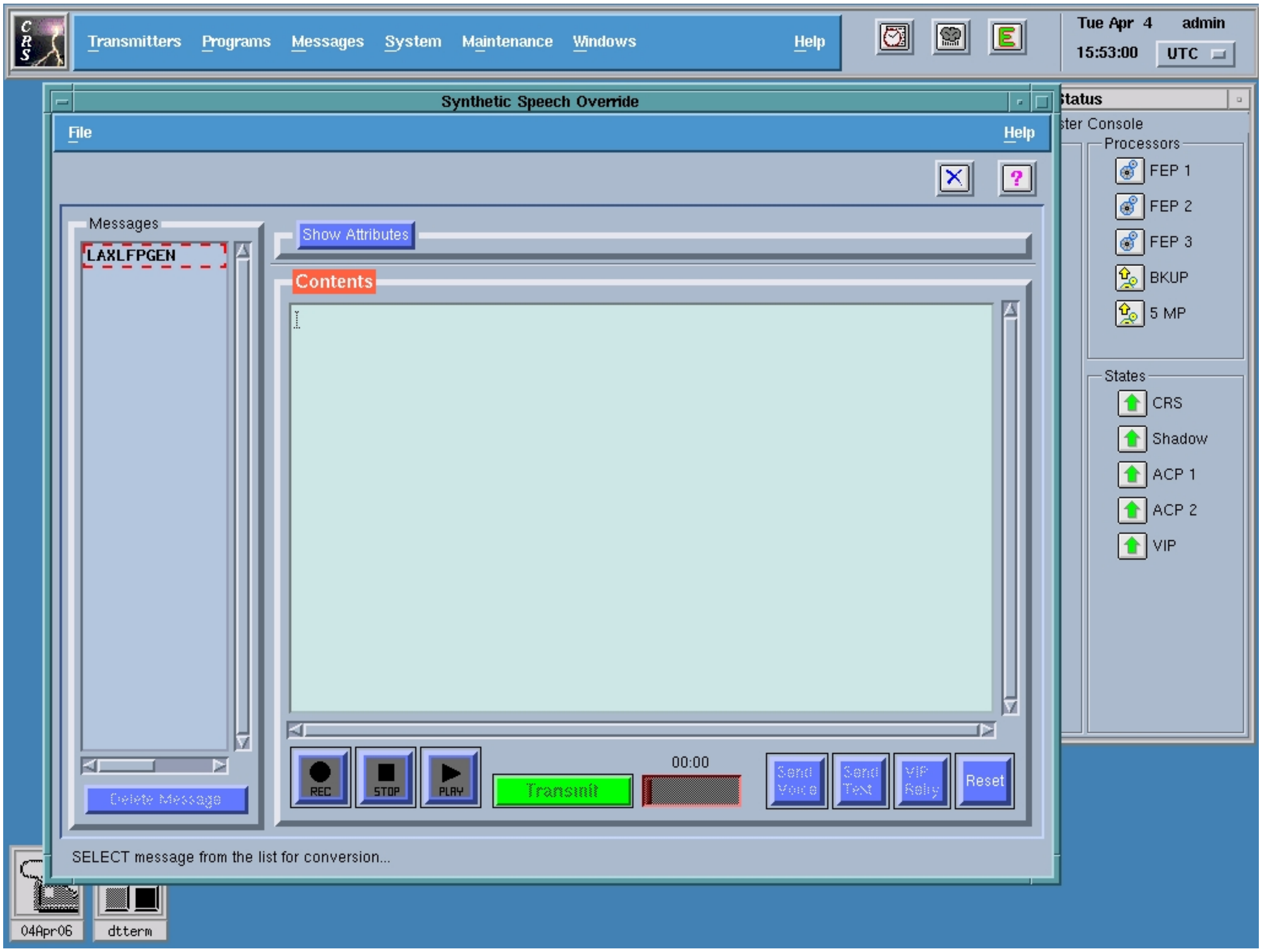
Regardless of when an AFOS/AWIPS message is actually received, the ***Synthetic Speech Override*** window will promptly be displayed (see Figure 15) and will remain on top of all other windows[3] until, of course, you acknowledge (i.e., digitize or accept) the message and then schedule it (at which point the window will be inconified). A notification of the message's arrival may also be queued to the ***Alert Monitor*** window and an audible alarm generated, depending on whether these attributes (i.e., operator notification and alarm generation) have been assigned to the notification (if necessary, see paragraph 3.6.2.5.11).

Dealing with an AFOS/AWIPS message once it arrives is a fairly easy process and involves the following steps:

a. Click on the AFOS/AWIPS message in the Messages subwindow and click the *Show Attributes* button. If the message is designated for conversion, it will be highlighted, and the associated message parameters, zones/areas, and text will be displayed in the Attributes, Areas/Zones, and Contents subwindows, respectively (see Figure 16).

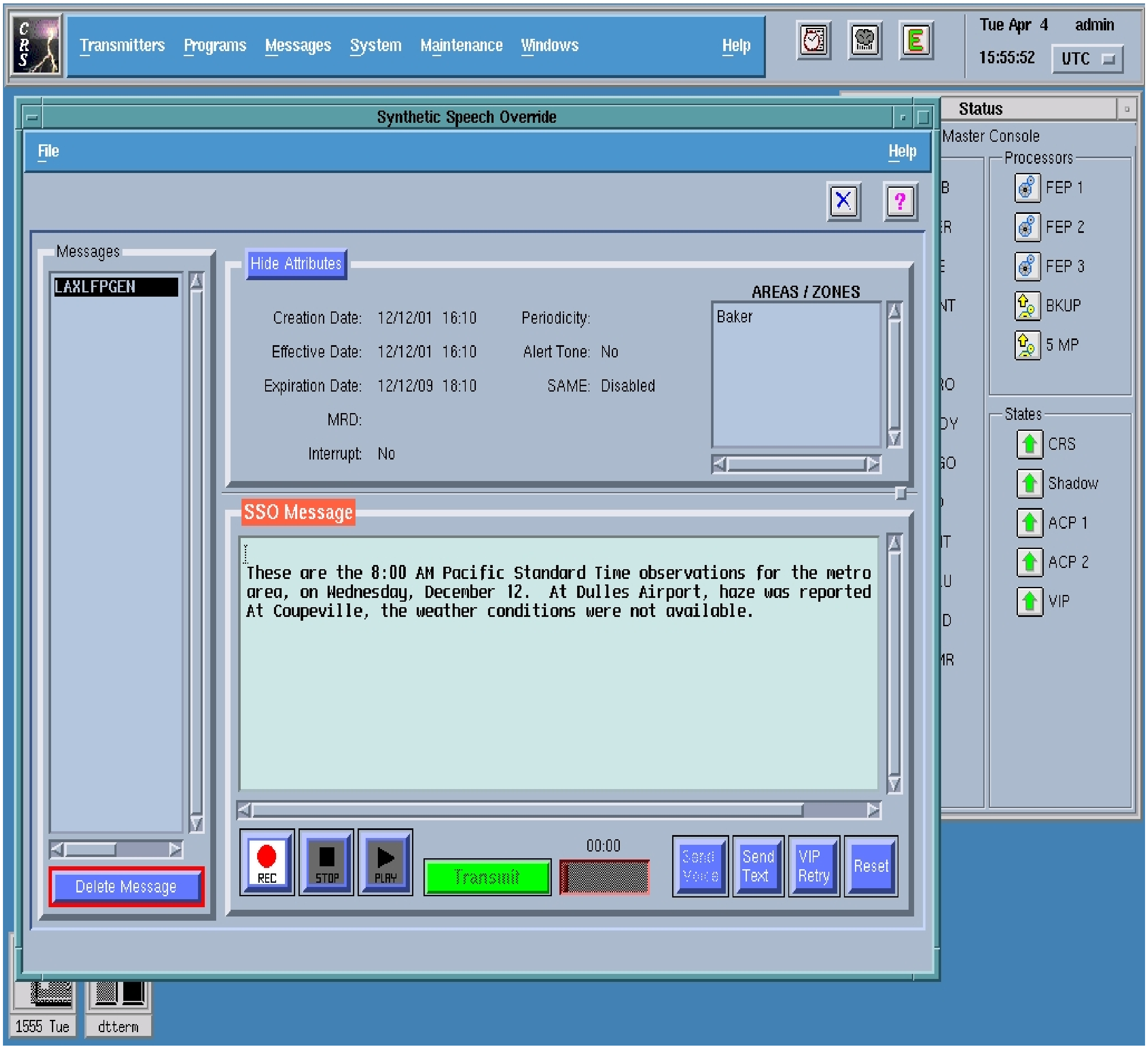
---

[3] *Although the* ***Synthetic Speech Override*** *window cannot be closed or iconified when there are pending AFOS/AWIPS messages, it can be moved out of the way of other windows by placing the cursor in the title bar area, clicking and holding down the left mouse button, and then moving the window beyond the viewable area (see Figure 17).*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Apr 4
admin
15:53:00
UTC
Synthetic Speech Override
File
Help
Messages
LAXLFPGEN
Delete Message
Show Attributes
Contents
REC
STOP
PLAY
Transmit
00:00
Send Voice
Send Text
VIP Relay
Reset
Status
ster Console
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
04Apr06
dtterm

SELECT message from the list for conversion...

Figure 15. Synthetic Speech Override Window


C R S
Transmitters
Programs
Messages
System
Maintenance
Windows
Help
E
Tue Apr 4
admin
15:55:52
UTC
Synthetic Speech Override
File
Help
?
Messages
Hide Attributes
AREAS / ZONES
SSO Message
REC
STOP
PLAY
Transmit
00:00
Send Voice
Send Text
VIP Retry
Reset
Delete Message
Status
Master Console
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
1555 Tue
dtterm

LAXLFPGEN

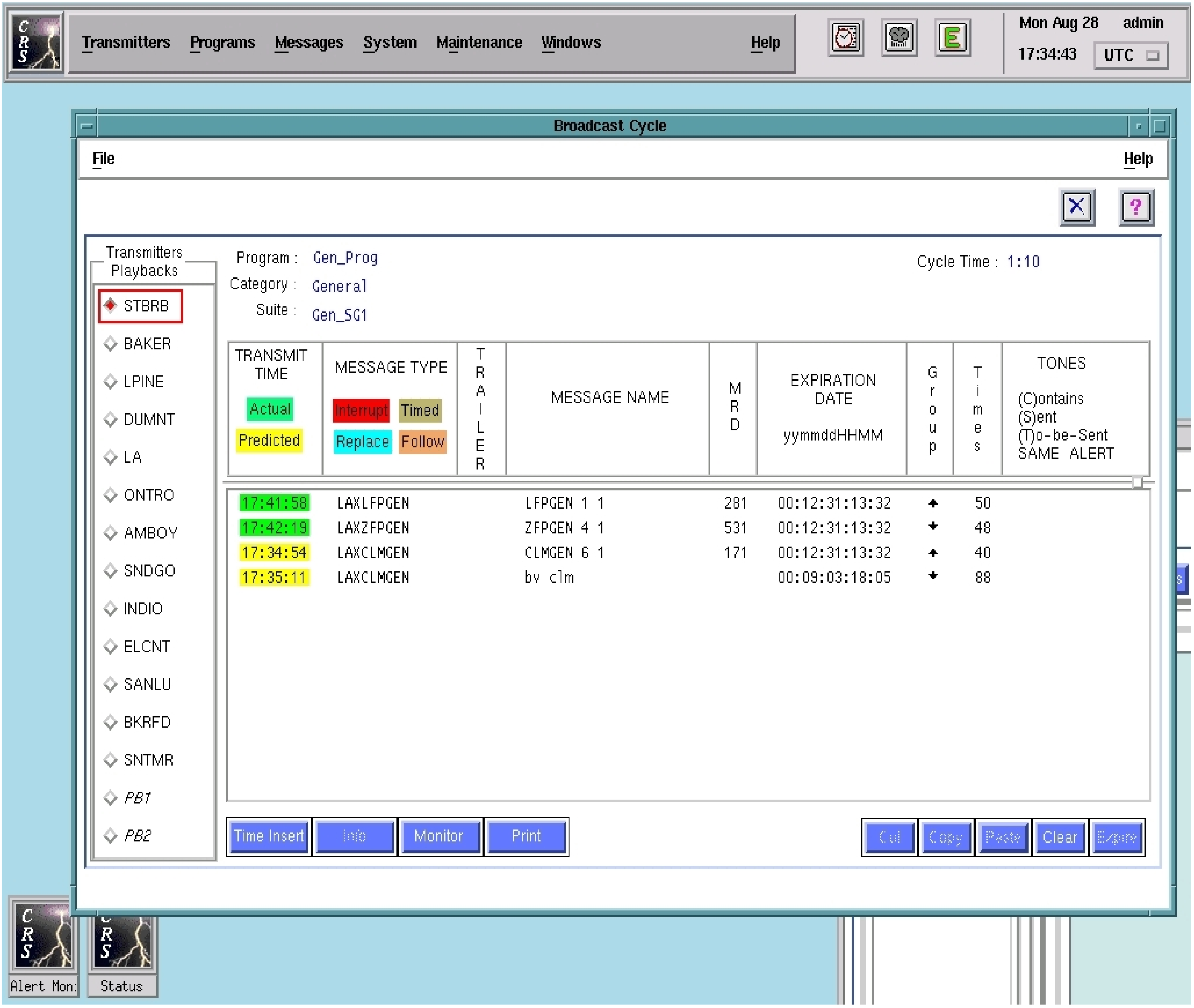
Creation Date: 12/12/01 16:10
Effective Date: 12/12/01 16:10
Expiration Date: 12/12/09 18:10
MRD:
Interrupt: No

Periodicity:
Alert Tone: No
SAME: Disabled

Baker

These are the 8:00 AM Pacific Standard Time observations for the metro
area, on Wednesday, December 12. At Dulles Airport, haze was reported
At Coupeville, the weather conditions were not available.

Figure 16. Synthetic Speech Override Window - Message Selected


CRS
Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
17:34:43
UTC
Broadcast Cycle
File
Help
?
Transmitters
Playbacks
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2
Actual
Predicted
Interrupt
Timed
Replace
Follow
Time Insert
Info
Monitor
Print
Cut
Copy
Paste
Clear
Expire
Alert Mon:
Status

Program : Gen_Prog
Category : General
Suite : Gen_SG1
Cycle Time : 1:10

TRANSMIT TIME	MESSAGE TYPE	TRAILER	MESSAGE NAME	MRD	EXPIRATION DATE yymmddHHMM	Group	Times	TONES (C)ontains (S)ent (T)o-be-Sent SAME ALERT
17:41:58	LAXLFPGEN		LFPGEN 1 1	281	00:12:31:13:32	↑	50	
17:42:19	LAXZFPGEN		ZFPGEN 4 1	531	00:12:31:13:32	↓	48	
17:34:54	LAXCLMGEN		CLMGEN 6 1	171	00:12:31:13:32	↑	40	
17:35:11	LAXCLMGEN		bv clm		00:09:03:18:05	↓	88	

Figure 17. Synthetic Speech Override Window Moved to the Side

You are now free to go to Step b. Please **note** that the information contained in these subwindows is "display only". To expand the display area of the Contents subwindow, click the *Hide Attributes* button or click the control handle (in the upper right-hand corner of the Contents subwindow) and drag it in an upward fashion.

If, on the other hand, the message is designated for conversion but fails, the message text will be displayed in the Conversion With Errors subwindow. Click the *VIP Retry* button if you want to retry the message conversion. Otherwise, go to Step b.

b. Do one of the following, depending on whether you want to digitize the message or send it as is (i.e., to DecTalk for voice synthesis):

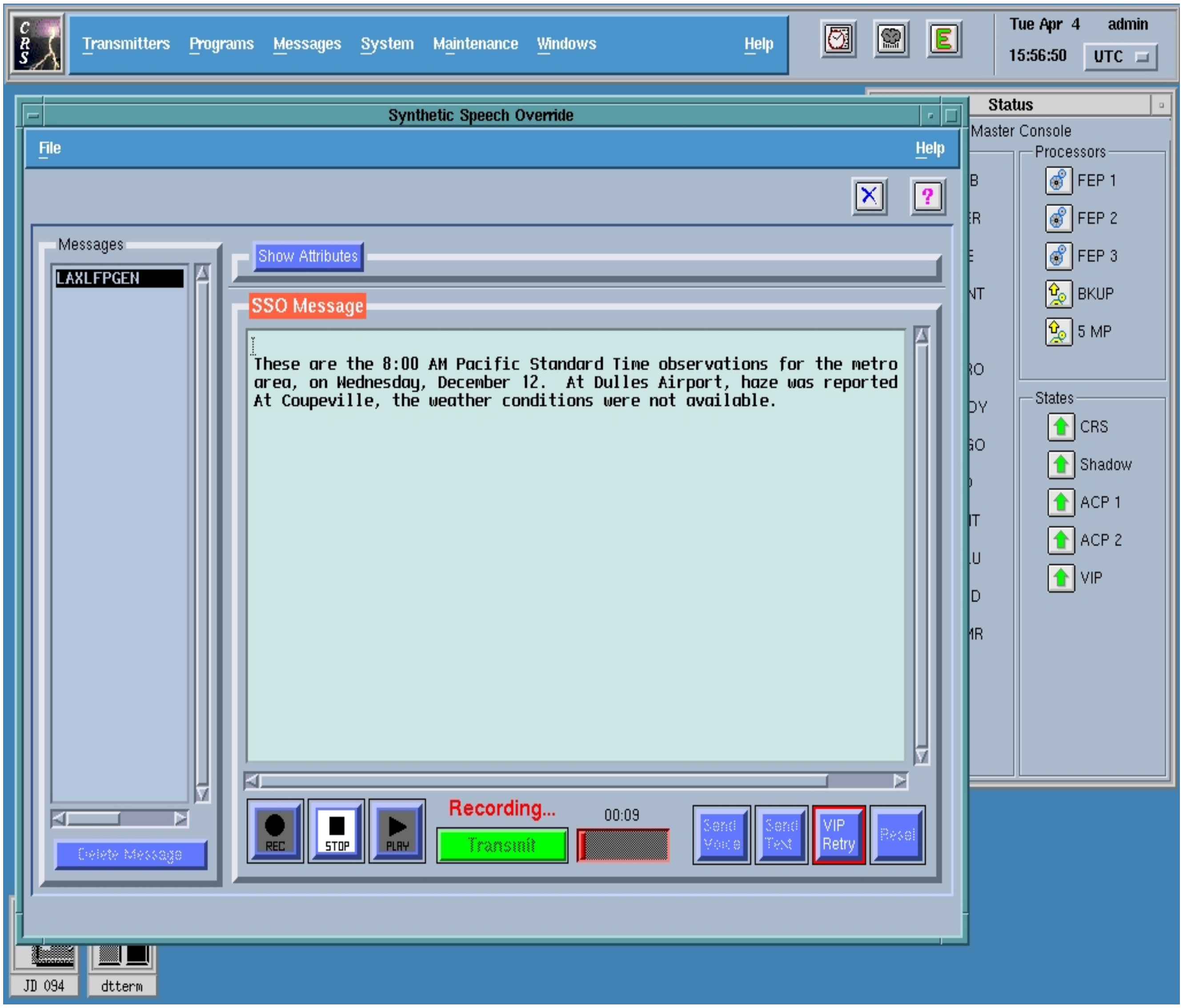
  1. Digitize the AFOS/AWIPS Message. If you want to digitize the message, perform the following substeps and then go to Step c.

     - Click the *REC* button. When the **Recording...** message appears (next to the elapsed time indicator), you can begin recording the message by reciting the message text (as it appears in the Contents subwindow) into the CRS headset/handset microphone (see Figure 18). When you have 30 seconds of recording time left, the **30 secs left...** message will appear (next to the elapsed time indicator. The amount of recording time is a site-configurable parameter and can vary from 5 to 15 minutes. If you're uncertain about this parameter, check with your System Administrator.)

     - Click the *STOP* button when finished with your recording.

     - Click the *PLAY* button to play back the message. The **Playing...** message will appear (next to the elapsed time indicator), and the message will be played back (see Figure 19).

     - If desired, re-record the message by repeating the substeps above and when satisfied (with the recording), go to the next substep. Otherwise, go to the next substep directly.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Apr 4
admin
15:56:50
UTC
Synthetic Speech Override
File
Help
Status
Master Console
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
Messages
LAXLFPGEN
Delete Message
Show Attributes
SSO Message
REC
STOP
PLAY
Recording...
Transmit
00:09
Send Voice
Send Text
VIP Retry
Reset
JD 094
dtterm

These are the 8:00 AM Pacific Standard Time observations for the metro area, on Wednesday, December 12. At Dulles Airport, haze was reported At Coupeville, the weather conditions were not available.

Figure 18. Synthetic Speech Override Window - Recording Commenced

- Click the *Send Voice* button. The newly digitized message will subsequently be scheduled for broadcast, and you will receive confirmation to this effect in the status display area. When broadcast, the message will be output as digitized voice.

~~Please **note** that you can, as an alternative to the above substeps, click the *Transmit* button and recite the message if you want to "go live" with the message broadcast.~~ Please ***note*** that the SSO Transmit option is non-operational and no longer available.

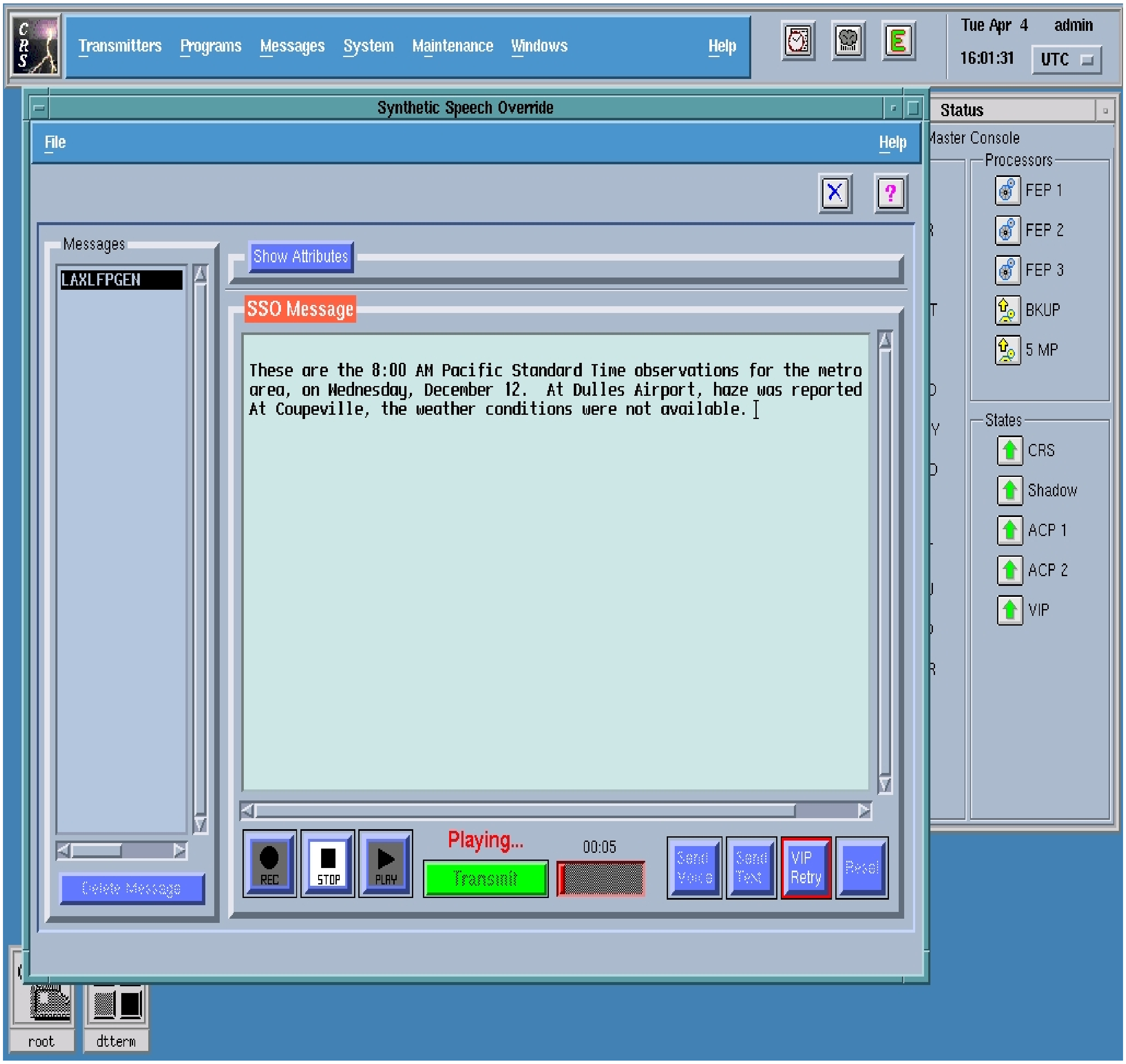
2. Accept the AFOS/AWIPS Message. If you want to accept or pass the message on as is (for voice synthesis), perform the following substeps and then go to Step c.

- Click the *Send Text* button. A confirmation prompt will appear in the form of a pop-up window.

- Click the *OK* button. The message will subsequently be scheduled for broadcast, and you will receive confirmation to this effect in the status display area. When broadcast, the message will be output as synthesized voice.

c. Confirm the inclusion of the just processed message in the current broadcast schedule (and, of course, its subsequent output) via the ***Broadcast Cycle*** window (see paragraph 3.6.2.1.4). (As mentioned above, the ***Synthetic Voice Override*** window can be moved to the side of the CRS Main Display (and thus out of the way of the ***Broadcast Cycle*** window or other windows) by placing the cursor in the title bar area, clicking and holding down the left mouse button, and then moving the window beyond the viewable area (see Figure 17).)

Please **note** that if the message contains a database/scheduling type error, an error notification will be displayed in the form of a pop-up window. To fix the erred message, you must access and correct the error via the ***Weather Message Correction*** window (see paragraph 3.6.2.3.6), and then repeat the appropriate steps above for the fixed message.

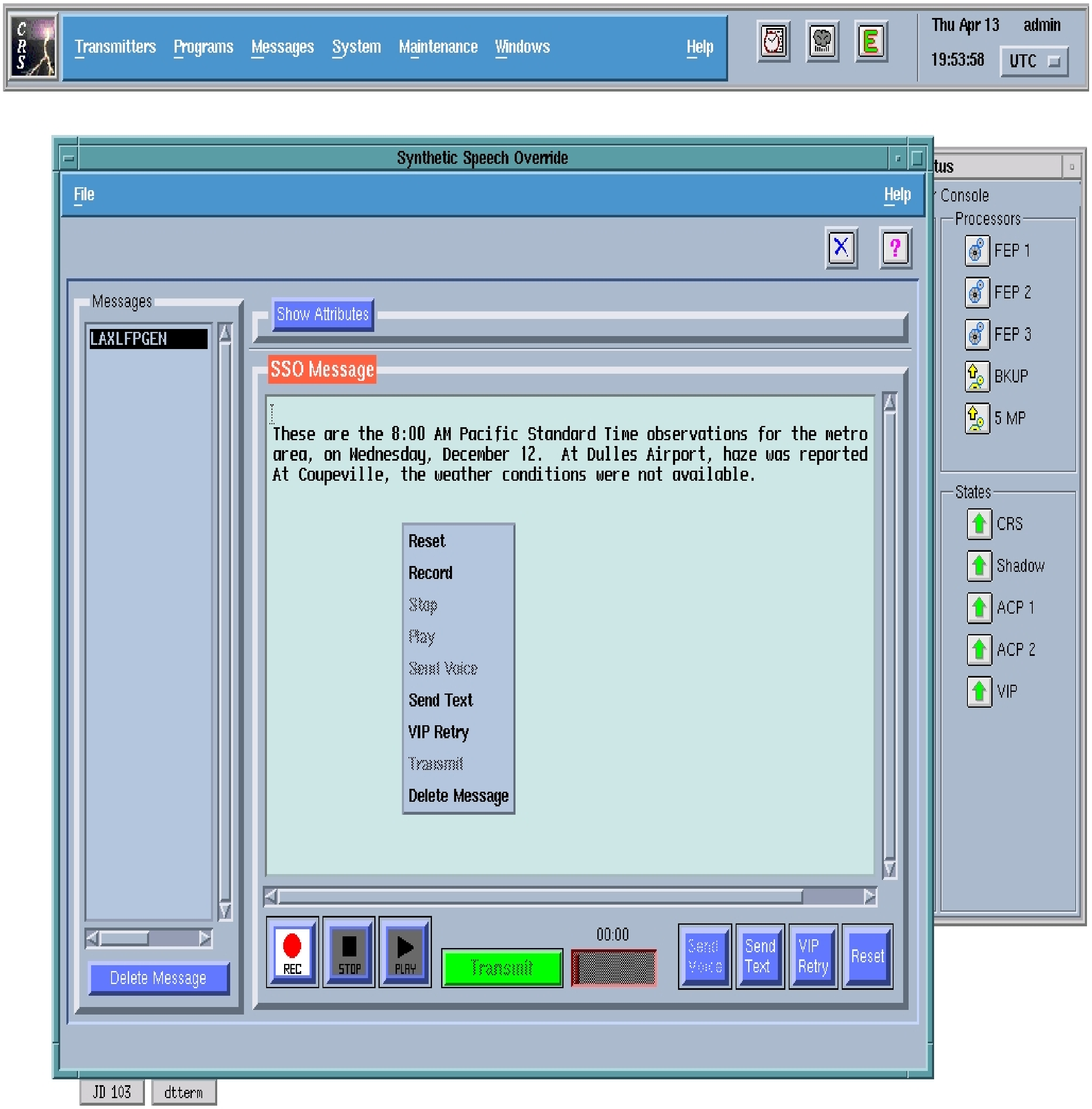


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Apr 4
admin
16:01:31
UTC
Synthetic Speech Override
File
Help
Status
Master Console
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
Messages
LAXLFPGEN
Show Attributes
SSO Message
Delete Message
REC
STOP
PLAY
Playing...
Transmit
00:05
Send Voice
Send Text
VIP Retry
Reset
root
dtterm

These are the 8:00 AM Pacific Standard Time observations for the metro area, on Wednesday, December 12. At Dulles Airport, haze was reported At Coupeville, the weather conditions were not available.

Figure 19. Synthetic Speech Override Window - Playback Selected

In support of the ***Synthetic Voice Override*** window, there are 2 additional buttons, i.e., *Delete Message* and *Reset*, and a pop-up menu. *Delete Message* allows you to delete a highlighted message (after acknowledging a confirmation prompt). *Reset* allows you to deselect a highlighted message as well as any recording changes you may have made to the message (again, after acknowledging a confirmation prompt). The pop-up menu allows you to perform any of the same functions associated with the buttons and can be accessed by placing the cursor near or around the Messages or Contents subwindow and clicking the right mouse button (see Figure 20).



CRS
Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Apr 13
admin
19:53:58
UTC
Synthetic Speech Override
File
Help
Messages
LAXLFPGEN
Delete Message
Show Attributes
SSO Message
Reset
Record
Stop
Play
Send Voice
Send Text
VIP Retry
Transmit
Delete Message
REC
STOP
PLAY
Transmit
00:00
Send Voice
Send Text
VIP Retry
Reset
tus
Console
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
JD 103
dtterm

These are the 8:00 AM Pacific Standard Time observations for the metro area, on Wednesday, December 12. At Dulles Airport, haze was reported At Coupeville, the weather conditions were not available.

Figure 20. Synthetic Speech Override Window - Pop-up Menu Selected

3.6. CRS Menu/Submenu Selection and Execution

The majority (or paragraph 3.6.2) of this portion of the SOM describes the various CRS menus and submenus as well as the procedures for selecting and executing them. However, in the event you need to create a broadcast program for the first time and are uncertain as to where to begin, you are encouraged to read paragraph 3.6.1 first, since it contains a "roadmap" for how to go about this.

3.6.1. Roadmap for Using CRS Menus/Submenus to Create Broadcast Programs

Once you have familiarized yourself with the operational and windowing concepts/nomenclature discussed in paragraphs 1.3.1 and 3.5.1 and have completed your Operator Terminal logon following the procedures described in paragraph 3.5.2, you may be wondering how it is you would actually go about creating a broadcast program. This paragraph, hence, is provided to give you some general guidelines (or a "roadmap" if you will) for creating a broadcast program for the first time.

To create a broadcast program from the bottom up, you will need to perform the following steps (in the order given):

a. Create Message Components. This is the first step in the process and allows you to create message components for your broadcast message. These components, which include Lead-In, Call-to-Action, Keep-Alive, and Interrupt Announcement, are created via the "Message Components" submenu. Thus, to create desired components via this menu, refer to and perform those procedures described in paragraph 3.6.2.3.7. In doing so, however, please **note** that you may be able to use or select from pre-defined message types, which would already have specified CTA and Lead-In message components.

b. Create Listening Areas/Zones. This step allows you to specify listening areas/zones for your broadcast program, which will determine or control to which geographic locations your program will be broadcast. To do this, refer to and perform those procedures described in paragraphs 3.6.2.1.2.1 and 3.6.2.1.2.2 (specifically, those under "a."). Please **note** that although you will need to create listening areas for your broadcast program, you may or may not have to create listening zones depending upon whether you want to create multiple listening areas and then assign them to a particular zone.

c. Assign Message Components to Transmitter. Once you have completed Steps a. and b. above, you will need to assign your message components (created under Step a. above) to a transmitter. To do this, refer to and perform those procedures described in paragraph 3.6.2.1.1. You will observe that the ***Transmitter Configure*** window, described in paragraph 3.6.2.1.1, allows you to configure Station ID, Keep-Alive, and Interrupt Announcement components, in addition to other transmitter parameters.

d. Create Message Type. This step may or may not be necessary since you will, more than likely, be using or selecting from pre-defined message types (as noted under Step a. above). However, in the event you do need or wish to create a new message type, refer to and perform those procedures described in paragraph 3.6.2.3.2 (specifically, those under "a."). Further, if creating a message type, you will need to assign to it the message components (i.e., Lead-In and Call-to-Action) created under Step a. above. Please **note** that regardless of whether you intend to create a new message type or select an existing message type, you will need to use this same message type when building and assigning your broadcast program (i.e., Steps e. through h. below), and when creating your weather message (i.e., Step i. below).

e. Create Message Groups. This step is optional depending on whether you want to use and assign multiple message types to a message group. If you do, then refer to and perform those procedures described in paragraph 3.6.2.3.3 (specifically, those under "a.").

f. Create Broadcast Suites. This step, depending on what you elected to do in Step e., allows you to assign your message type(s) or group(s) to suites. To do this, refer to and perform those procedures described in paragraph 3.6.2.3.1 (specifically, those under "a.")

g. Create Broadcast Program. This step allows you to assign your suite(s) to a broadcast program. To do this, refer to and perform those procedures described in paragraph 3.6.2.2.1 (specifically, those under "a.").

h. Assign Broadcast Program to Transmitter/Playback Channel. This step allows you to assign your newly created program to a transmitter or playback channel. Since this is a new broadcast program, you probably will want to assign it to a playback channel so that you can monitor the program prior to broadcasting it over a transmitter. To do this, refer to and perform those procedures described in paragraph 3.6.2.2.2 (specifically, those under "b."). Please **note** that you will need to pick (or "emulate") for your playback session that transmitter which you assigned message components to under Step c. above.

i. Create Weather Message. The step allows you to actually create your weather message. To do this, refer to and perform those procedures described in paragraph 3.6.2.3.5 (specifically, those under "a."). Please **note** that when creating your weather message, you will need to select the same message type created under Step d. above and/or assigned to a suite under Step f. above.

j. Monitor Broadcast Program. Once you have completed Steps a. through i. above, you can then monitor your broadcast program via the procedures described in paragraph 3.6.2.1.4.

3.6.2. CRS Menus/Submenus

The following paragraphs describe each of the CRS menu options available from the CRS Main Menus along with the step-by-step procedures for their selection and execution.

3.6.2.1. Transmitter Menu

The **Transmitter** menu bar component features five submenu options, i.e., Transmitter Configure, Listening Area, Disable Silence Alarm, Broadcast Cycle, and ROAMS, which allow you to perform specific transmitter-related functions. These options are described below in paragraphs 3.6.2.1.1 through 3.6.2.1.5, respectively.

3.6.2.1.1. Transmitter Configure

This submenu option allows you to view or edit parameters for a specified transmitter or playback channel. It also allows you to re-initialize DecTalk parameters for a specified transmitter or playback channel.[3]. To perform the option, click the **Transmitter** menu and then select "Transmitter Configure". The ***Transmitter Configure*** window will then be presented (see Figure 21). To continue, select (by clicking) the desired transmitter or playback channel in the Transmitters subwindow. The parameter fields in the Attributes subwindow will then update to reflect any previously defined parameters for the transmitter (as shown in Figure 21). These parameters will include:

a. Frequency - indicates the frequency of the transmitter and is "display only" (i.e., it cannot be changed via this window).

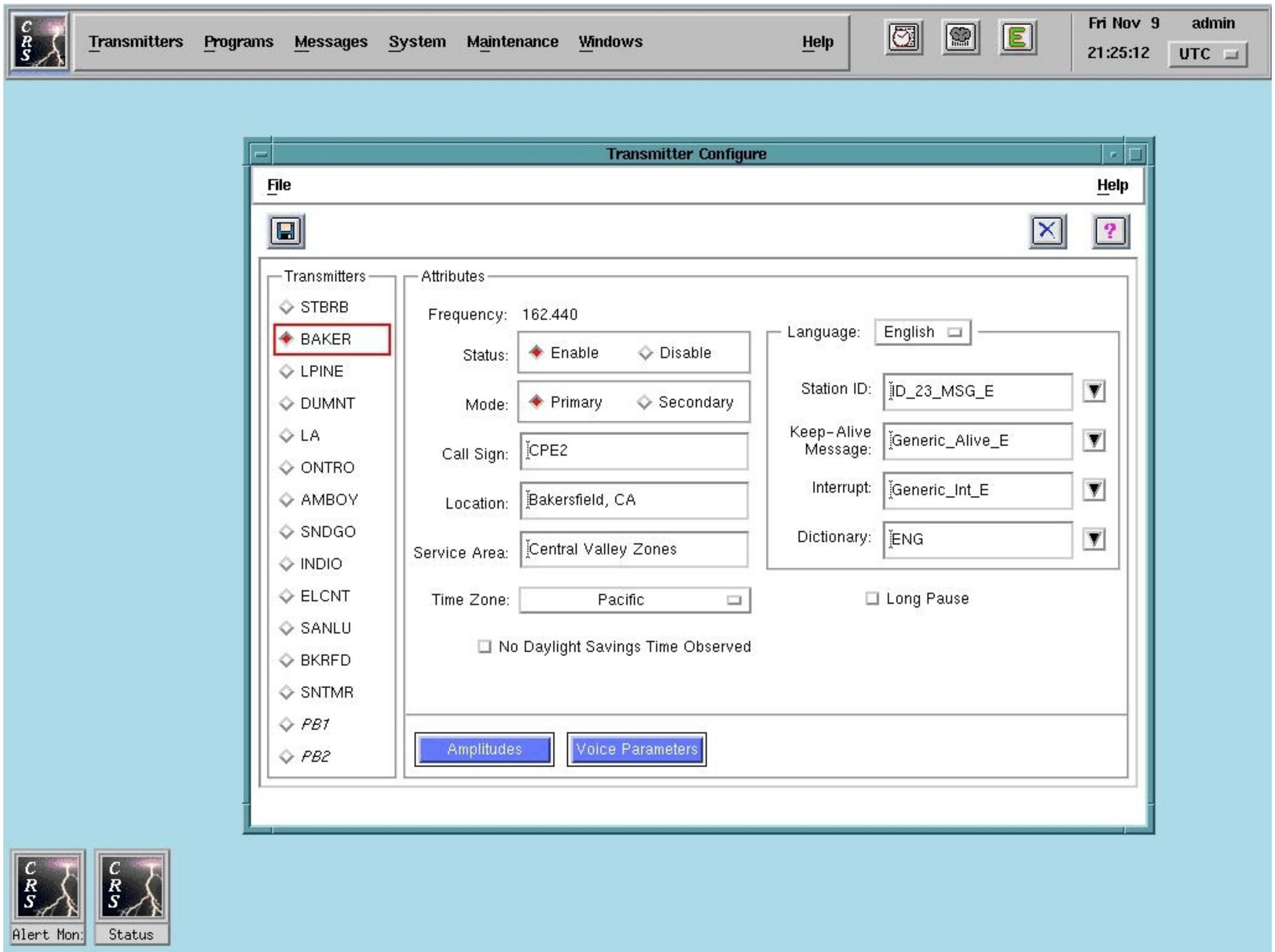
b. Status - indicates the status of the transmitter, i.e., Enable or Disable. To specify or change the status, merely click the desired value via the mouse.

c. Mode - indicates the mode of the transmitter, i.e., Primary or Secondary. To specify or change the mode, merely click the desired value via the mouse.

d. Call Sign - indicates the call sign for the transmitter. This field will accept up to 5 ASCII characters, if specifying or changing the value.

---

[3] *Site operators will be able to display but not edit transmitter/playback channel parameters, nor will they be able to re-initialize DecTalk parameters. Only the CRS system administrator will be able to edit or re-initialize these parameters. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
admin
21:25:12
UTC
Transmitter Configure
File
Help
Amplitudes
Voice Parameters
Alert Mon:
Status

Transmitters
- ○ STBRB
- ● BAKER
- ○ LPINE
- ○ DUMNT
- ○ LA
- ○ ONTRO
- ○ AMBOY
- ○ SNDGO
- ○ INDIO
- ○ ELCNT
- ○ SANLU
- ○ BKRFD
- ○ SNTMR
- ○ *PB1*
- ○ *PB2*

Attributes

Frequency: 162.440

Status: ● Enable ○ Disable

Mode: ● Primary ○ Secondary

Call Sign: CPE2

Location: Bakersfield, CA

Service Area: Central Valley Zones

Time Zone: Pacific

☐ No Daylight Savings Time Observed

Language: English

Station ID: ID_23_MSG_E

Keep-Alive Message: Generic_Alive_E

Interrupt: Generic_Int_E

Dictionary: ENG

☐ Long Pause

Figure 21. Transmitter Configure Window

e. Location - indicates the location of the transmitter. This field will accept up to 40 ASCII characters, if specifying or changing the value.

f. Service Area - indicates the service area of the transmitter. This field will accept up to 40 ASCII characters, if specifying or changing the value.

g. Time Zone - indicates the time zone associated with the transmitter, i.e., Universal Coordinated Time, Atlantic, Eastern, Central, Mountain, Pacific, Alaska, Hawaii-Aleutian, or Guam. To specify or change the time zone, click the option button to the right of the field and then select the desired time zone from the option list.

h. No Daylight Savings Time Observed - indicates whether or not no daylight savings time will be observed for the transmitter. To enable or disable no daylight savings time, click the toggle button to the left of the field (a filled in toggle button means that no daylight savings time is enabled and hence will not be observed).

i. Language - indicates the language in which message components will be broadcast over the transmitter, i.e., English or Spanish. This field will be set to (and hence will indicate) English by default. To specify or change the language, click the option button to the right of the field and then select the desired language from the option list.

If set to English, the display lists associated with the Station ID, Keep-Alive Message, Interrupt Announcement, and Dictionary fields (items j through m below) will contain English-related broadcast components; if set to Spanish, these lists will contain Spanish-related broadcast components. Hence, list items, upon selecting and transferring them, will appear (in their respective fields) as either English- or Spanish-related broadcast components, depending on the language selected.

Please **note** that you can configure a transmitter for English and Spanish, English only, or Spanish only. For English and Spanish, make sure that you have an English and a Spanish dictionary selected in the Dictionary field. To verify this, merely toggle the Language field between English and Spanish and verify (for each language) the presence of the appropriate language dictionary in the Dictionary field. (Normally, when selecting a language in the Language field, the appropriate default language dictionary, i.e., "ENG" for English or "SPA" for Spanish, is automatically inserted in the Dictionary field.) For English only, make sure that you have an English but not a Spanish dictionary selected in the Language field (again, verify by toggling between English and Spanish in the Language field and viewing the entry in the Dictionary field). For Spanish only, make sure that you have a Spanish but not an English dictionary selected in the Dictionary field (again, verify by toggling between English and Spanish in the Language field and viewing the entry in the Dictionary field). When configuring for Spanish only, if you should inadvertently delete the entry from the Dictionary field after selecting Spanish in the Language field (and save the changes), the transmitter will default back to English.

j. Station ID - indicates the Station ID of the transmitter. To specify or change the Station ID, click the list button to the right of the field and then select the desired Station ID from the pick-list.

k. Keep-Alive Message - indicates the Keep-Alive Message associated with the transmitter. (*A Keep-Alive Message simply defined is a message that is output on the transmitter immediately following the alert tone and consists of either digitized voice or voice synthesized from ASCII text. Its purpose is to allow receiving equipment enough time (up to 30 seconds) to prepare for the message without triggering the silence alarm.*) To specify or change the Keep-Alive Message, click the list button to the right of the field and then select the desired Keep-Alive Message from the pick-list.

l. Interrupt - indicates the Interrupt Announcement Message associated with the transmitter. (*An Interrupt Announcement Message simply defined is an optional statement immediately preceding the output of an interrupt message which identifies it as such.*) To specify or change the Interrupt Announcement Message, click the list button to the right of the field and then select the desired Interrupt Announcement Message from the pick-list.

m. Dictionary - indicates the dictionary associated with the transmitter. To specify or change the dictionary, click the list button to the right of the field and then select the desired dictionary from the pick-list.

n. Long Pause - indicates whether or not long pauses in messages will be activated for the transmitter. To enable or disable the long pause, click the toggle button to the left of the field (a filled in toggle button means the long pause is enabled and hence will be activated).

In addition to the above-mentioned parameters, you can also view or edit amplitudes and voice parameters as well as re-initialize DecTalk parameters for the transmitter. Please **note** that if your intent is to merely re-initialize DecTalk parameters for the transmitter, then click the APPLY hotkey (in the hotkey menu bar) and click the *OK* button in response to the confirmation dialog. Your request to re-initialize DecTalk parameters will subsequently be executed, and you will receive confirmation to this effect in the status display area. However, if your intent is to change other transmitter parameters (i.e., those described above or below), the DecTalk parameters will automatically be re-initialized for the transmitter when you save your changes.

To view or edit amplitudes and voice parameters, perform one or both of the following depending on the desired operation:

a. Voice Parameters. To view/edit voice parameters, perform the following steps:

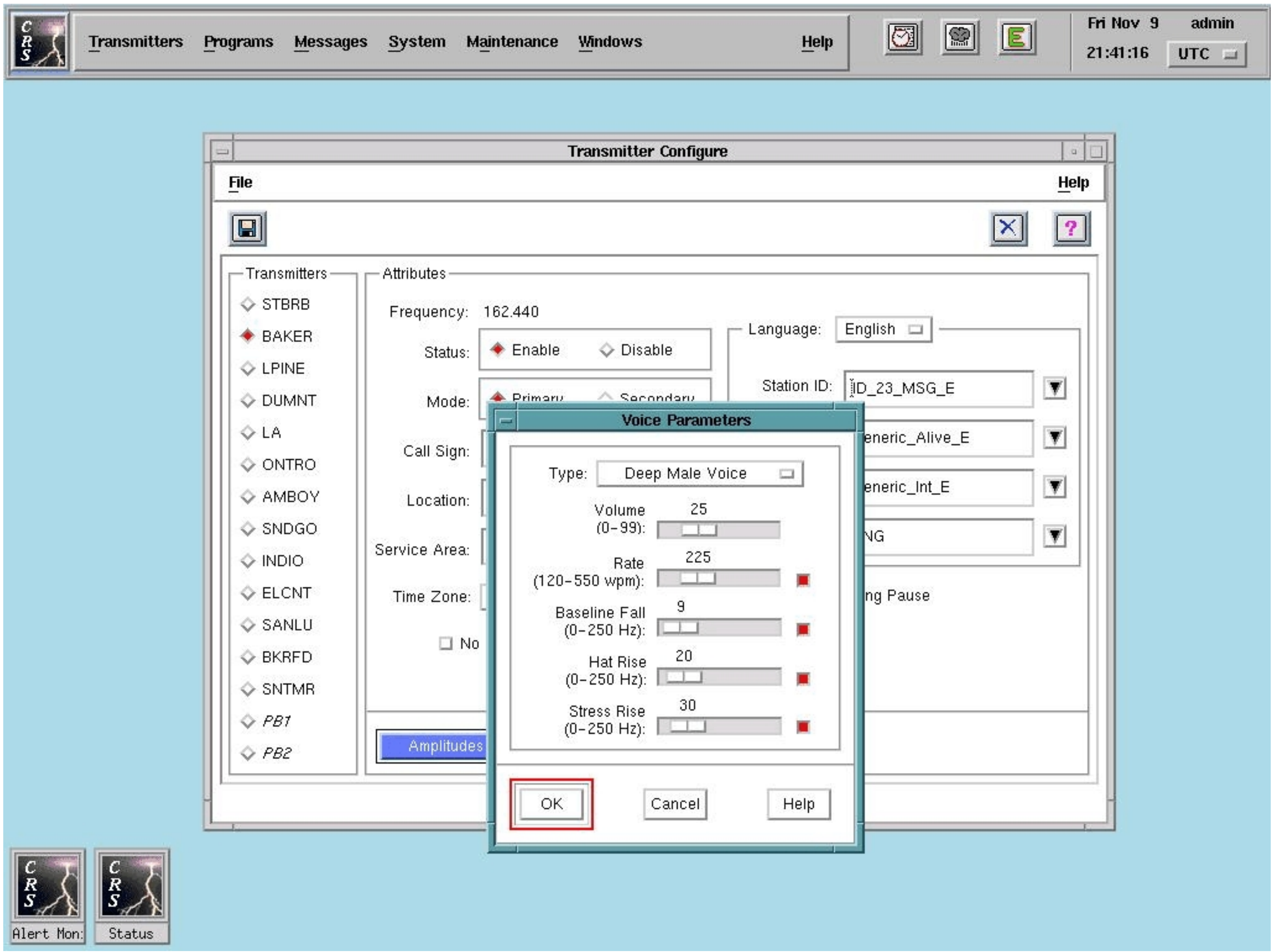
   1. Click the *Voice Parameters* button. The ***Voice Parameters*** window will then be presented (see Figure 22), displaying the following voice parameters:

      - Type - indicates the DecTalk voice type (i.e., Standard Male Voice, Standard Female Voice, Deep Male Voice, Older Male Voice, Child Voice, Deep Female Voice, Light Female Voice, Breathy Male Voice, Whispery Female Voice, and Breathy Female Voice). To specify or change the type, click the option button to the right of the field and then select the desired type from the option list.

      - Volume - indicates the volume (in decibels) for the selected voice type. To specify or change the volume, move the slider to the desired setting (i.e., 0 to 99 dB).

      - Rate - indicates the rate (in words per minute, wpm) of speech for the selected voice type. To specify or change the rate, move the slider to the desired setting (i.e., 120 to 550 wpm).

      - Baseline Fall - determines one aspect of the dynamic frequency of a contour of a sentence. To specify or change the baseline fall, move the slider to the desired setting (i.e., 0 to 250 Hz).



Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
21:41:16
admin
UTC
Transmitter Configure
File
Help
Amplitudes
OK
Cancel
Help
Alert Mon:
Status

Transmitters: ◇ STBRB, ◆ BAKER, ◇ LPINE, ◇ DUMNT, ◇ LA, ◇ ONTRO, ◇ AMBOY, ◇ SNDGO, ◇ INDIO, ◇ ELCNT, ◇ SANLU, ◇ BKRFD, ◇ SNTMR, ◇ *PB1*, ◇ *PB2*

Attributes

Frequency: 162.440

Status: ◆ Enable ◇ Disable

Mode: ◆ Primary ◇ Secondary

Call Sign:

Location:

Service Area:

Time Zone:

☐ No

Language: English

Station ID: ID_23_MSG_E

eneric_Alive_E

eneric_Int_E

NG

ng Pause

Voice Parameters

Type: Deep Male Voice

Volume (0-99): 25

Rate (120-550 wpm): 225

Baseline Fall (0-250 Hz): 9

Hat Rise (0-250 Hz): 20

Stress Rise (0-250 Hz): 30

Figure 22. Voice Parameters Window

- Hat Rise - determines, along with stress rise, another aspect of the dynamic frequency of a contour of a sentence. To specify or change the hat rise, move the slider to the desired setting (i.e., 0 to 250 Hz).

- Stress Rise - indicates the nominal height (in Hz) of a local pitch rise and fall on each stressed syllable for the selected voice type. It is added to any hat rise or fall that may also be defined. To specify or change the stress rise, move the slider to the desired setting (i.e., 0 to 250 Hz).

2. Click the *OK* button, upon specifying or modifying voice parameters, and you will be returned to the ***Transmitter Configure*** window.

b. Amplitudes. To view/edit amplitudes, perform the following steps:

1. Click the *Amplitudes* button. The ***Amplitudes*** window will then be presented (see Figure 23), displaying the following amplitude parameters:

   - Alert Tone - indicates the amplitude of the alert tone. To specify or change the alert tone amplitude, move the slider to the desired setting (i.e., 0 to 99 units).

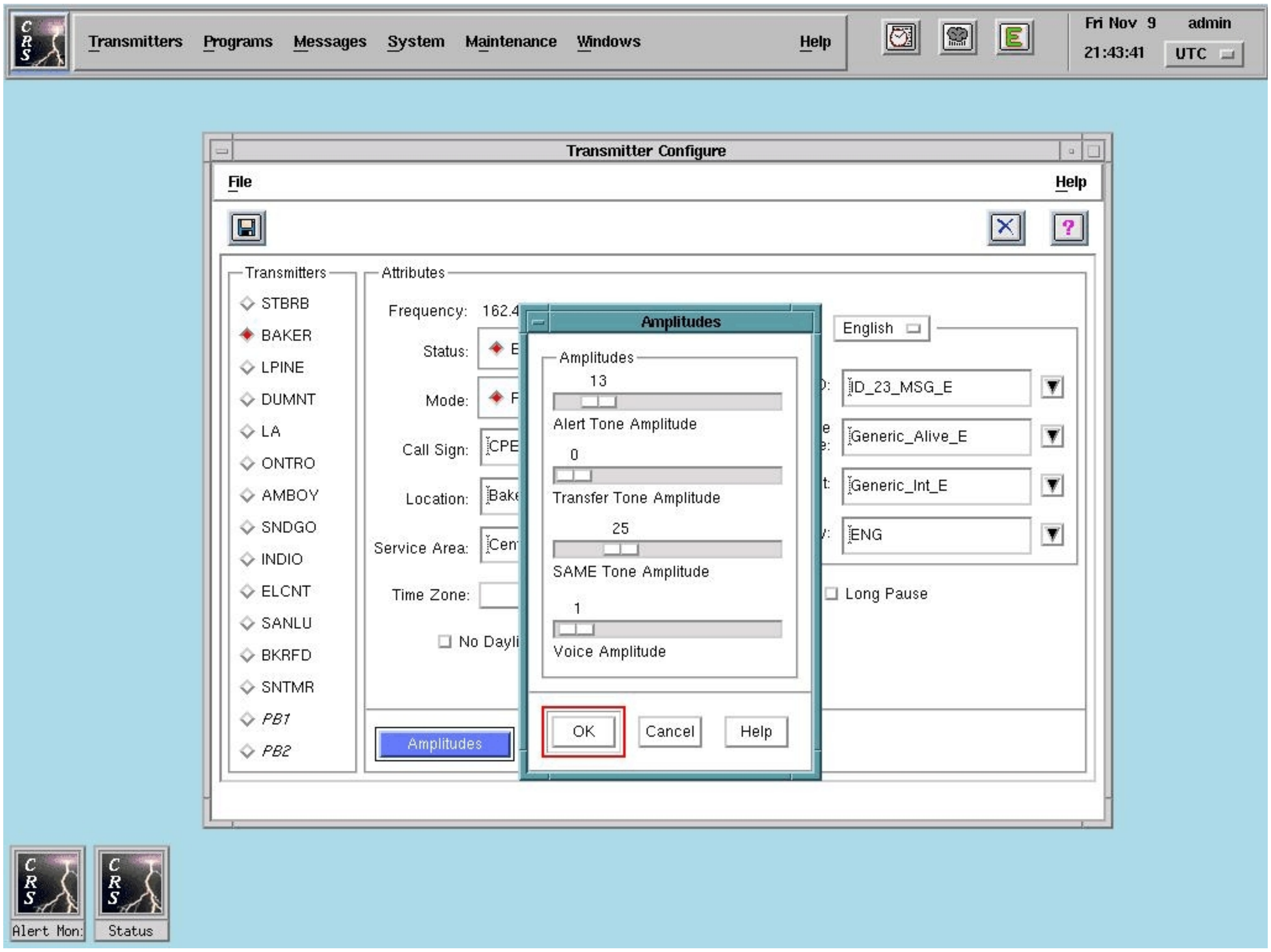
   - Transfer Tone - indicates the amplitude of the transfer tone. To specify or change the transfer tone amplitude, move the slider to the desired setting (i.e., 0 to 99 units).

   - SAME Tone - indicates the amplitude of the SAME tone. To specify or change the SAME tone amplitude, move the slider to the desired setting (i.e., 0 to 99 units).

   - Voice - indicates the amplitude of the voice output over the transmitter. To specify or change the voice amplitude, move the slider to the desired setting (i.e., 0 to 99 units).

2. Click the *OK* button, upon specifying or modifying amplitudes, and you will be returned to the ***Transmitter Configure*** window.

If you modified any of the selected transmitter's parameters, click the APPLY hotkey (in the hotkey menu bar). Your changes will subsequently be saved, and you will receive confirmation to this effect in the status display area.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
admin
21:43:41
UTC
Transmitter Configure
File
Help
Transmitters
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2
Attributes
Amplitudes
OK
Cancel
Help
Alert Mon:
Status

Frequency: 162.4
Call Sign: CPE
Location: Bake
Service Area: Cen
Time Zone:
☐ No Dayli
English
ID_23_MSG_E
Generic_Alive_E
Generic_Int_E
ENG
☐ Long Pause

Amplitudes

Alert Tone Amplitude: 13
Transfer Tone Amplitude: 0
SAME Tone Amplitude: 25
Voice Amplitude: 1

Figure 23. Amplitudes Window

3.6.2.1.2. Listening Area

This submenu option allows you to access the Listening Areas and Listening Zones submenu options. These options are described below in paragraphs 3.6.2.1.2.1 and 3.6.2.1.2.2, respectively.

Please **note** that the Listening Areas and Listening Zones submenu options are provided to allow you to control to which geographic locations your program will be broadcast. Specifically, the Listening Areas submenu option is provided to allow you to define Listening Areas (in the form of Listening Areas Codes, "LACs") and then map them to configured transmitters, whereas the Listening Zones submenu option is provided to allow you to assign multiple Listening Areas (defined using the Listening Areas submenu) to specific Listening Zones. These areas and zones will then be available to you for selection and assignation when performing other submenu functions (e.g., when creating message types and weather messages, and when performing emergency override broadcasts).

3.6.2.1.2.1. Listening Areas

This submenu option allows you to create, view, or edit LACs in county format and map these LACs to specific transmitters. To perform the option, click the **Transmitter** menu and then select "Listening Areas". The ***Listening Areas*** window will then be presented (see Figure 24). To continue, perform "a." or "b." below depending on the desired operation.

a. Create LAC. If your intent is to create a LAC, then perform the following steps:

1. Click the CREATE hotkey (in the hotkey menu bar).

2. Enter the desired 6-character LAC in the Area Code field in the form:

   SSXNNN

   where "SS" indicates the state, "X" indicates the area code format, and "NNN" indicates the county code number. There are two acceptable formats for "X": C for county code, and a numeral (i.e., 1 through 9) for a partial area code.

3. Enter the location of the LAC in the Location field. This field will accept up to 30 ASCII characters. Please **note** that this field is informational only.

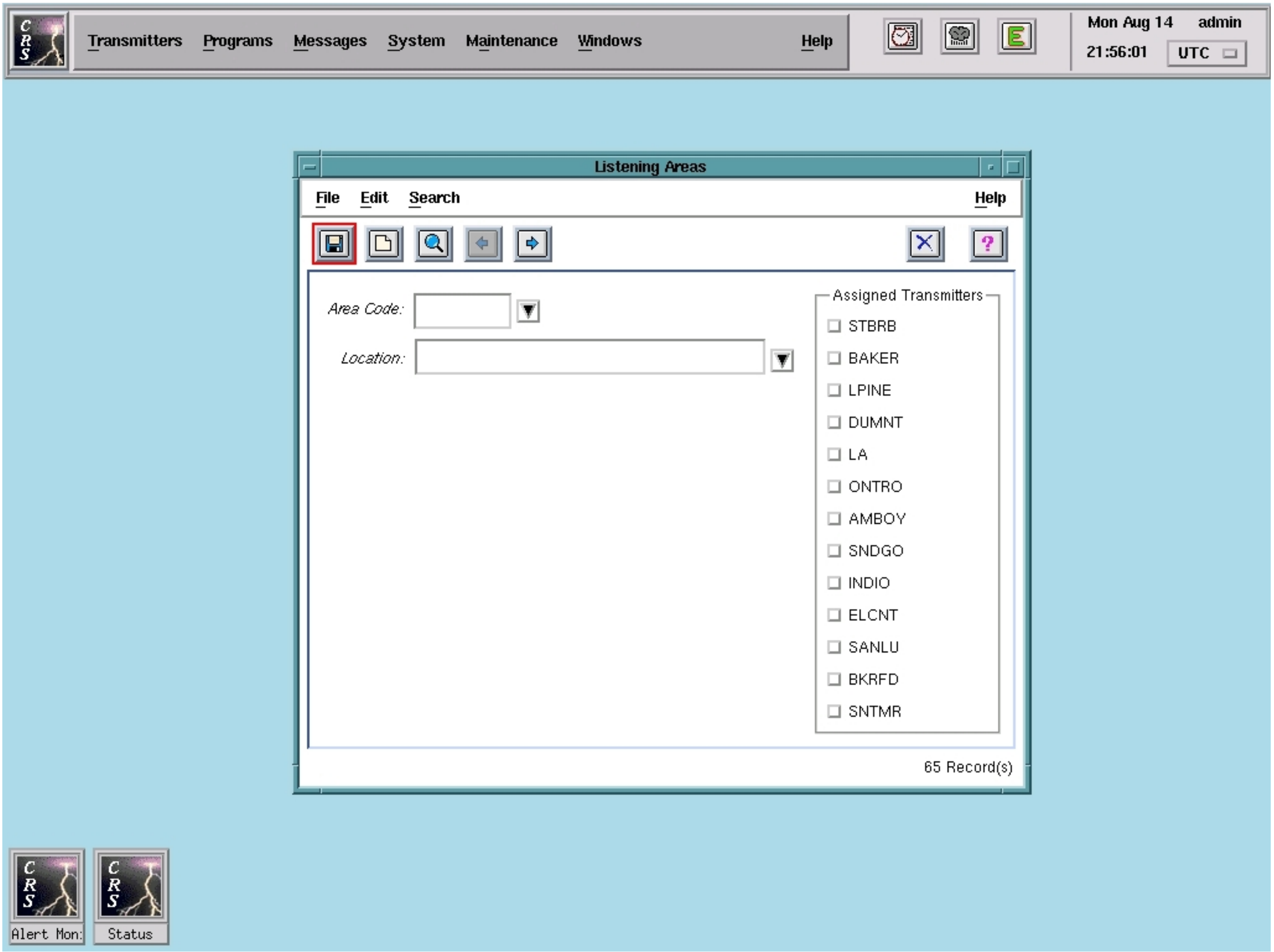

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
21:56:01
UTC
Listening Areas
File
Edit
Search
Help
Area Code:
Location:
Assigned Transmitters
☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
☐ SNDGO
☐ INDIO
☐ ELCNT
☐ SANLU
☐ BKRFD
☐ SNTMR
65 Record(s)
Alert Mon:
Status

Figure 24. Listening Areas Window

4. Select the desired transmitter(s) by clicking the toggle button to the left of the transmitter(s).

5. Click the SAVE hotkey (in the hotkey menu bar). The LAC will subsequently be saved, and you will receive confirmation to this effect in the status display area.

b. View/Edit LAC. If your intent is to view or edit a LAC, then perform the following steps:

1. Click the list button to the right of the Area Code field and select the desired LAC from the pick-list by double-clicking it. The LAC will be transferred to the Area Code field, and the Location, FIPS Code, and Assigned Transmitter fields will update to reflect those parameters associated with the LAC[4].

2. View/edit the LAC. If editing the LAC, follow Steps 3 through 5 under "a." above, since the procedures for editing LACs are essentially the same as those for creating LACs.

---

[4] *Throughout the CRS Site Operator's Manual, this is the prescribed method for retrieving a particular record for viewing or editing. However, you can as an alternative, key in the record name if you know it and then click the FIND hotkey, or as another alternative, you can click the NEXT RECORD or PREVIOUS RECORD hotkeys repeatedly until you reach the desired record.*

3.6.2.1.2.2. Listening Zones

This submenu option allows you to create, view, or edit listening zones and define them in terms of listening areas (counties and cities). To perform the option, click the **Transmitter** menu and then select "Listening Zones". The ***Listening Zones*** window will then be presented (see Figure 25). To continue, perform "a." or "b." below depending on the desired operation.

a. Create Zone. If your intent is to create a zone, then perform the following steps:

1. Click the CREATE hotkey (in the hotkey menu bar).

2. Enter the desired 6-character zone code in the Zone Code field in the form:

   SSZNNN

   where "SS" indicates the state, "Z" indicates zone (and thus must always be a "Z"), and "NNN" indicates the zone code number.

3. Enter the desired zone name in the Zone Name field. This field will accept up to 60 ASCII characters.

4. Specify areas for the listening zone by first clicking the *Add* button, after which the ***Listening Area List*** window will be presented (see Figure 26). Then, select desired areas by highlighting them[5] and clicking the *Apply* or *OK* button[6], which will copy the selected areas to the Listening Areas subwindow.

5. Once you have assigned all desired areas to the zone, use the *Up* and *Down* arrow buttons, as necessary, to move a highlighted area up or down within the list of areas. The *Remove* button is also available to allow you to remove any selected (or highlighted) area.

---

[5] *To highlight multiple items in pick-list windows, place the cursor on each item and then press (and hold down) the Ctrl key and click the mouse button.*

[6] *For windows that have both an Apply and an OK button, use one or the other depending on the desired operation. The Apply button will copy the highlighted item(s) from the displayed pick-list window into the main window and leave the pick-list window open (in this case, the* ***Listening Area List*** *window). The OK button will also copy the highlighted item(s) but will then close the pick-list window; hence, this is the button of choice throughout the remainder of this manual. Double-clicking a highlighted item will work much the same as clicking the OK button, i.e., it will copy the highlighted item and then close the pick-list window.*

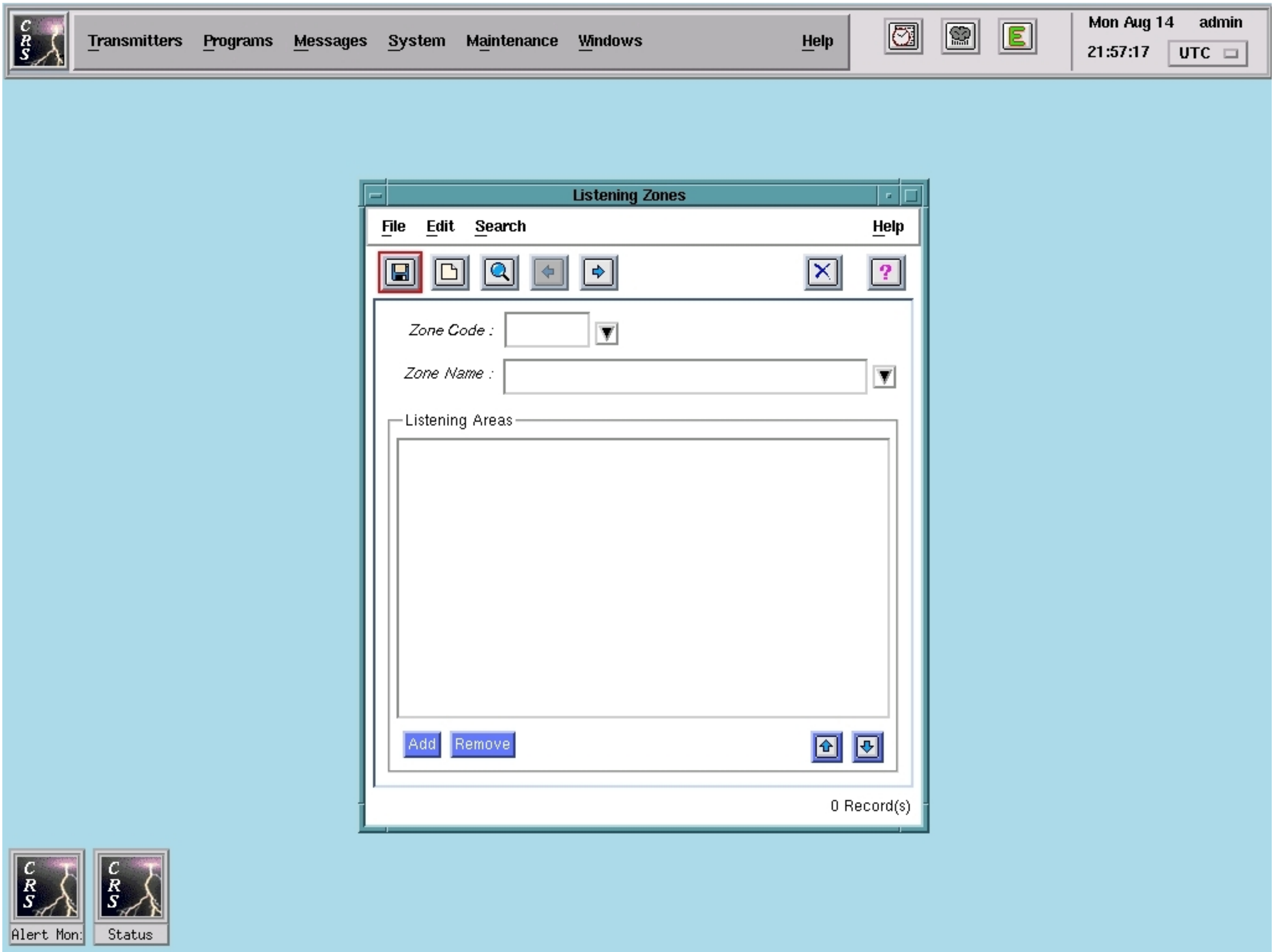
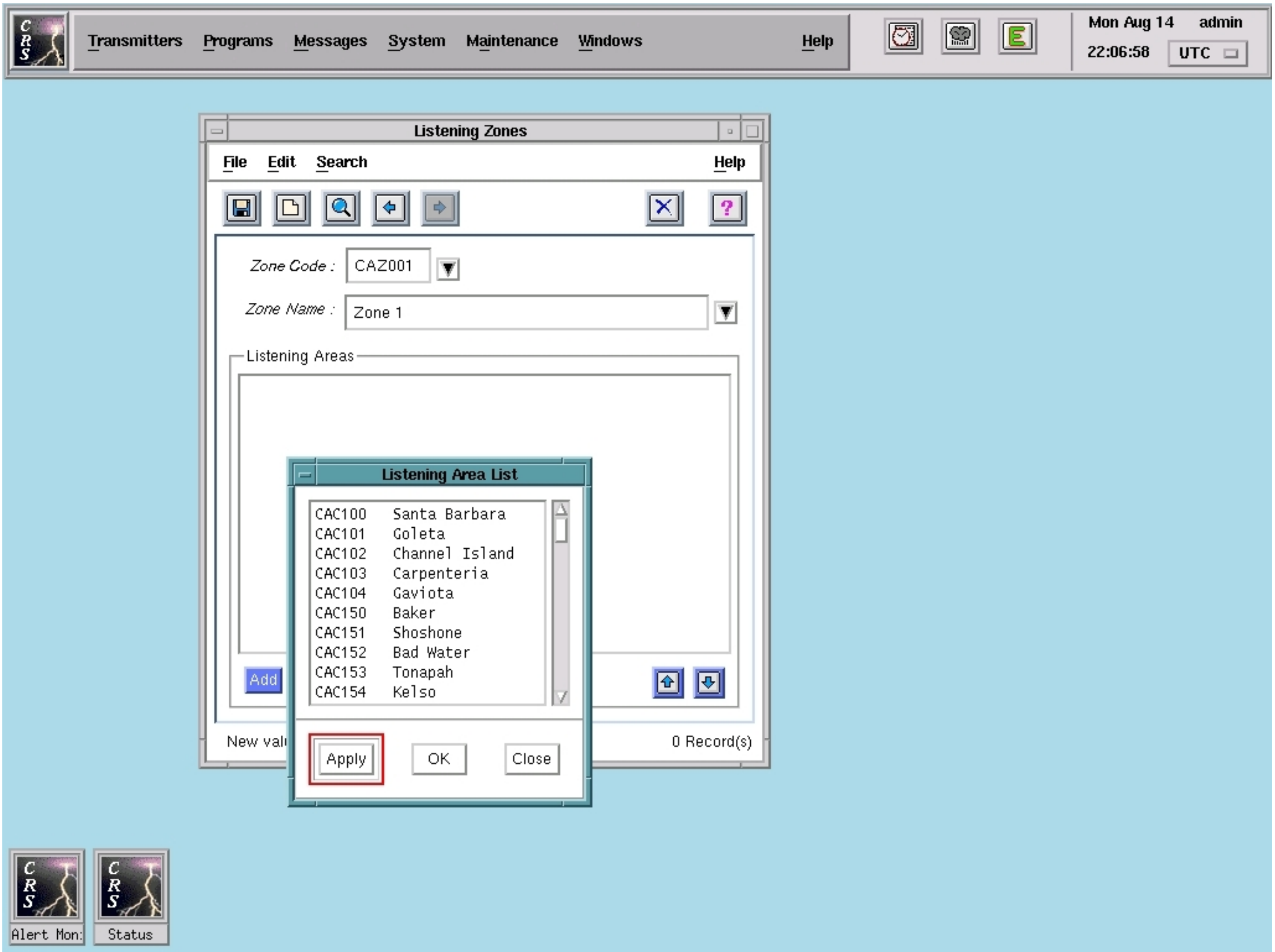

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
21:57:17
UTC
Listening Zones
File
Edit
Search
Help
Zone Code :
Zone Name :
Listening Areas
Add
Remove
0 Record(s)
Alert Mon:
Status

Figure 25. Listening Zones Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Listening Zones
File
Edit
Search
Help
Listening Areas
Add
Listening Area List
Apply
OK
Close
Alert Mon:
Status

Mon Aug 14 admin
22:06:58 UTC

Zone Code : CAZ001

Zone Name : Zone 1

CAC100	Santa Barbara
CAC101	Goleta
CAC102	Channel Island
CAC103	Carpenteria
CAC104	Gaviota
CAC150	Baker
CAC151	Shoshone
CAC152	Bad Water
CAC153	Tonapah
CAC154	Kelso

New val

0 Record(s)

Figure 26. Listening Area List Window

6. Click the SAVE hotkey (in the hotkey menu bar). The zone will subsequently be saved, and you will receive confirmation to this effect in the status display area.

b. View/Edit Zone. If your intent is to view or edit a zone, then perform the following steps:

1. Click the list button to the right of the Zone Code field and select the desired zone code from the pick-list by double-clicking it. The zone code will be transferred to the Zone Code field, and the Zone Name and Listening Areas subwindow will update to reflect the zone name and any listening areas previously defined for the zone code. As an alternative, if you don't know the zone code but do know the zone name, you can following a similar procedure (i.e., by using the Zone Name list button) search for a particular zone name. Upon doing this, the Zone Code and Listening Areas subwindow will update to reflect the zone code and listening areas previously defined for the selected zone name.

2. View/edit the selected zone. If editing the zone, follow Steps 4 through 6 described under "a." above, since the procedures for editing zones are essentially the same as those for creating zones.

3.6.2.1.3. Disable Silence Alarm

This submenu option allows you to disable or enable the silence alarm for one or more transmitters. To perform the option, click the **Transmitter** menu and then select "Disable Silence Alarm". The ***Disable Silence Alarm*** window will then be presented (see Figure 27). To continue, perform the following steps:

a. Click the radio button to the left of the desired transmitter(s). The *Select All* and *Deselect All* buttons are provided to enable you to select all or deselect all transmitters, respectively.

b. Click the APPLY hotkey (in the hotkey menu bar). The request (to disable/enable the silence alarm(s)) will subsequently be executed, and you will receive confirmation to this effect in the status display area.

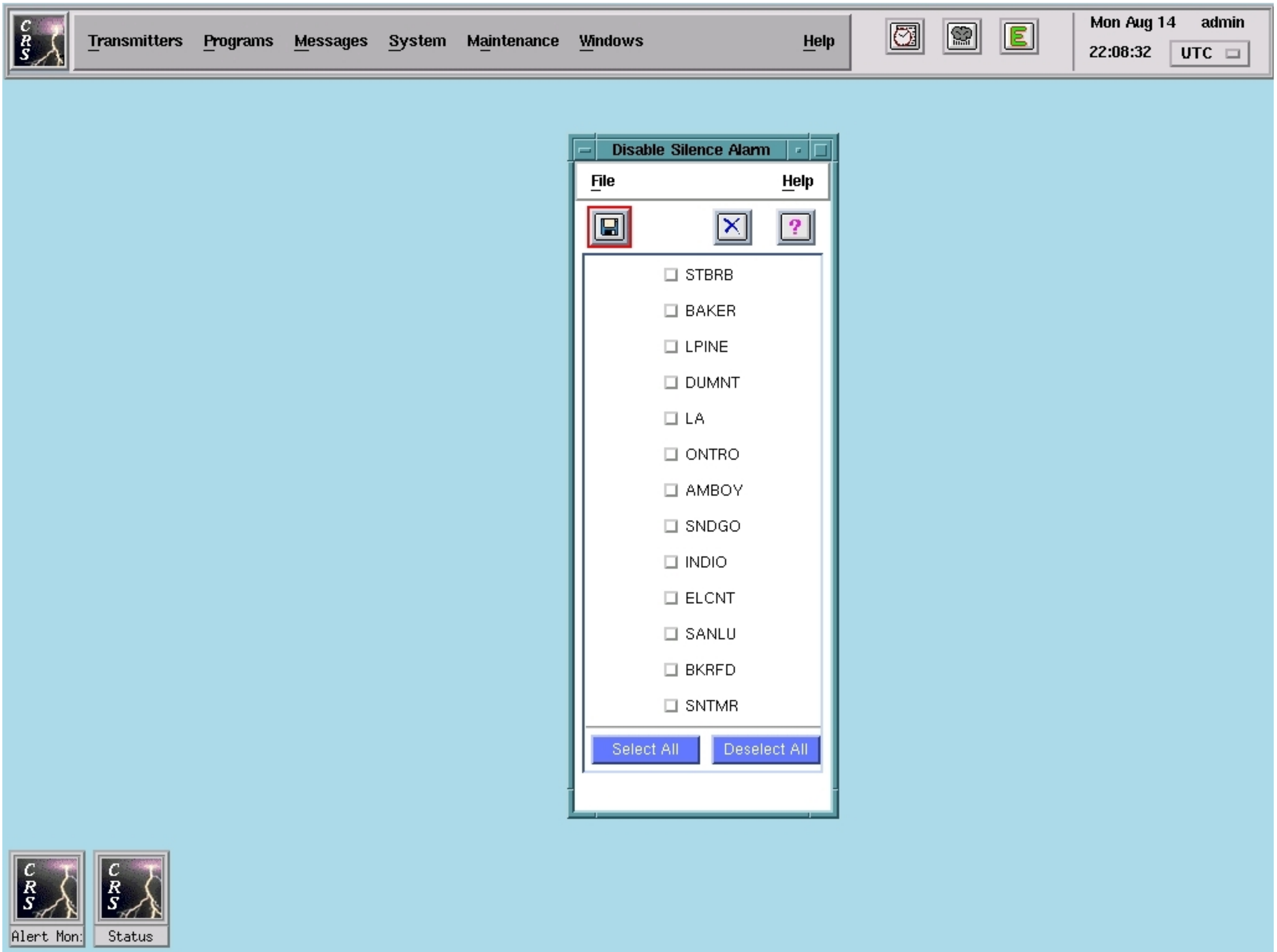

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
22:08:32
UTC
Disable Silence Alarm
File
Help
☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
☐ SNDGO
☐ INDIO
☐ ELCNT
☐ SANLU
☐ BKRFD
☐ SNTMR
Select All
Deselect All
Alert Mon:
Status

Figure 27. Disable Silence Alarm Window

3.6.2.1.4. Broadcast Cycle

This submenu option allows you to view a real-time broadcast of the broadcast cycle for a specified transmitter or playback channel. To perform the option, click the **Transmitter** menu and then select "Broadcast Cycle". The ***Broadcast Cycle*** window will then be presented (see Figure 28). To continue, click the radio button to the left of the desired transmitter. The ***Broadcast Cycle*** window will then be updated to reflect broadcast cycle information for the specified transmitter (as shown in Figure 28). This information will include:

a. Transmit Time. This is the time at which the message was broadcast, or if the message is yet to be broadcast, the time it is predicted to be broadcast. Messages that have already been broadcast will be shown along with their actual times. Actual times will be highlighted in one color, whereas predicted times will be highlighted in another. The last message with an actual time is the current message being broadcast (in this case, it would be message "ANCEFPAK"--see Figure 28).

b. Message Type. This indicates the AFOS ID of the broadcast message. This value will be colored, per the Message Type legend, to indicate whether it is an Interrupt, Timed, Replace, or Follow message.

c. Trailer. This indicates whether there is a Trailer associated with the broadcast message, in which case a "generalized" Spanish version of the message will be broadcast immediately after the English version is broadcast. Possible display values are:

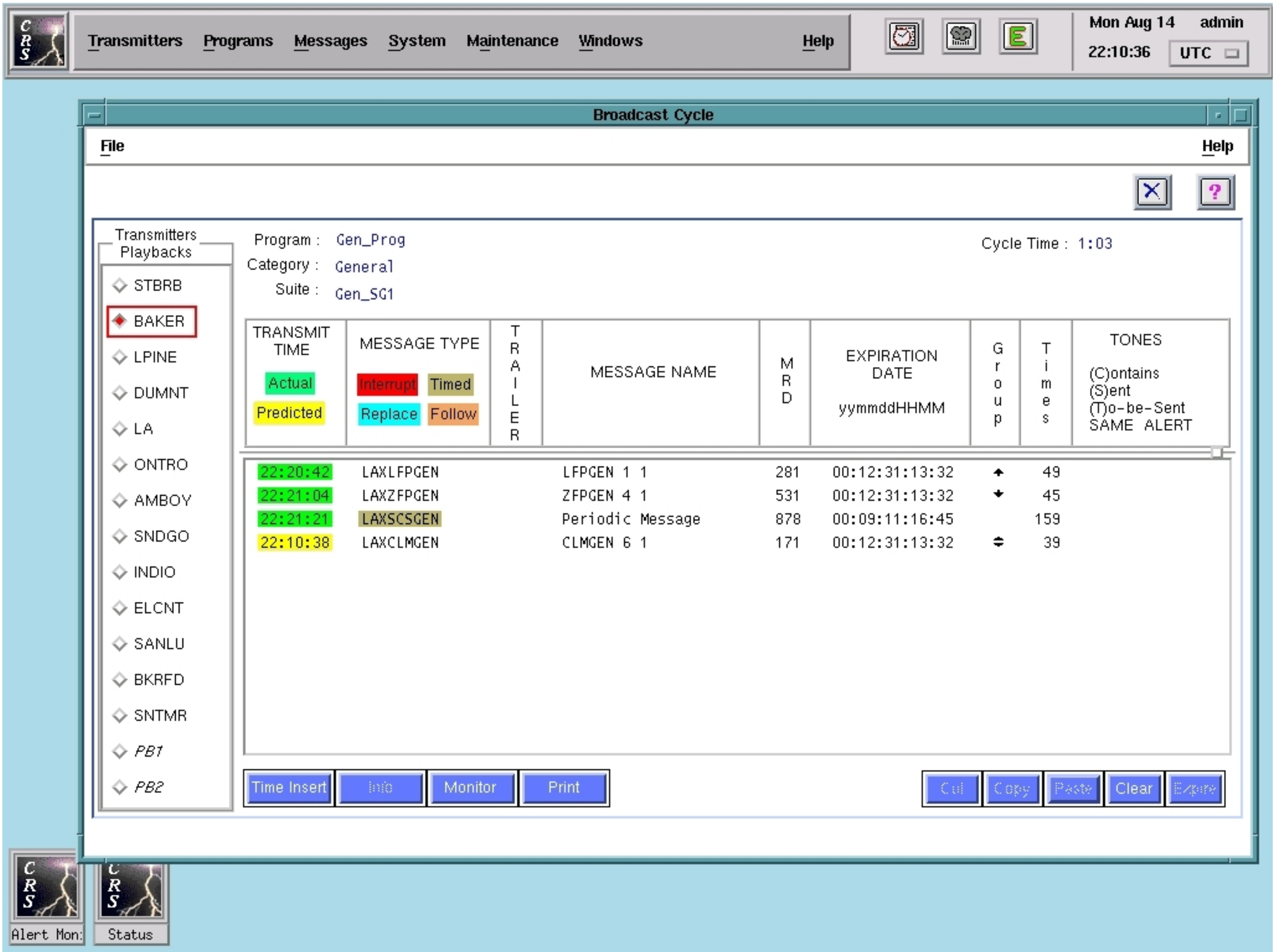
    1. "1" - The Spanish version will only be broadcast once, i.e., following the initial broadcast of the English version.

    2. "A" - The Spanish version will "always" be broadcast, i.e., following the initial as well as any subsequent broadcasts of the English version.

d. Message Name. This indicates the name of the broadcast message.

e. MRD. This indicates the Message Reference Descriptor (MRD) of the broadcast message, i.e, if one has been assigned to the message. If necessary, see paragraph 3.6.2.3.5 (specifically, Step 8 under item "a.").

f. Expiration Date. This indicates the expiration date/time of the broadcast message.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
22:10:36
UTC
Broadcast Cycle
File
Help
Transmitters
Playbacks
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2
Actual
Predicted
Interrupt
Timed
Replace
Follow
(C)ontains
(S)ent
(T)o-be-Sent
SAME ALERT
Time Insert
Info
Monitor
Print
Cut
Copy
Paste
Clear
Expire
Alert Mon:
Status

Program : Gen_Prog
Category : General
Suite : Gen_SG1
Cycle Time : 1:03

TRANSMIT TIME	MESSAGE TYPE	TRAILER	MESSAGE NAME	MRD	EXPIRATION DATE yymmddHHMM	Group	Times	TONES
22:20:42	LAXLFPGEN		LFPGEN 1 1	281	00:12:31:13:32	↑	49	
22:21:04	LAXZFPGEN		ZFPGEN 4 1	531	00:12:31:13:32	↓	45	
22:21:21	LAXSCSGEN		Periodic Message	878	00:09:11:16:45		159	
22:10:38	LAXCLMGEN		CLMGEN 6 1	171	00:12:31:13:32	⇕	39	

Figure 28. Broadcast Cycle Window

g. Group. This indicates whether the message is a member of a defined message group. Messages belonging to the same group will be those falling between and including those to the immediate left of the up and down arrow symbols.

h. Times. This indicates the number of times the message has been broadcast since its effective time.

i. Tones. This details any SAME or Alert tones that are associated with the message. Possible display values are:

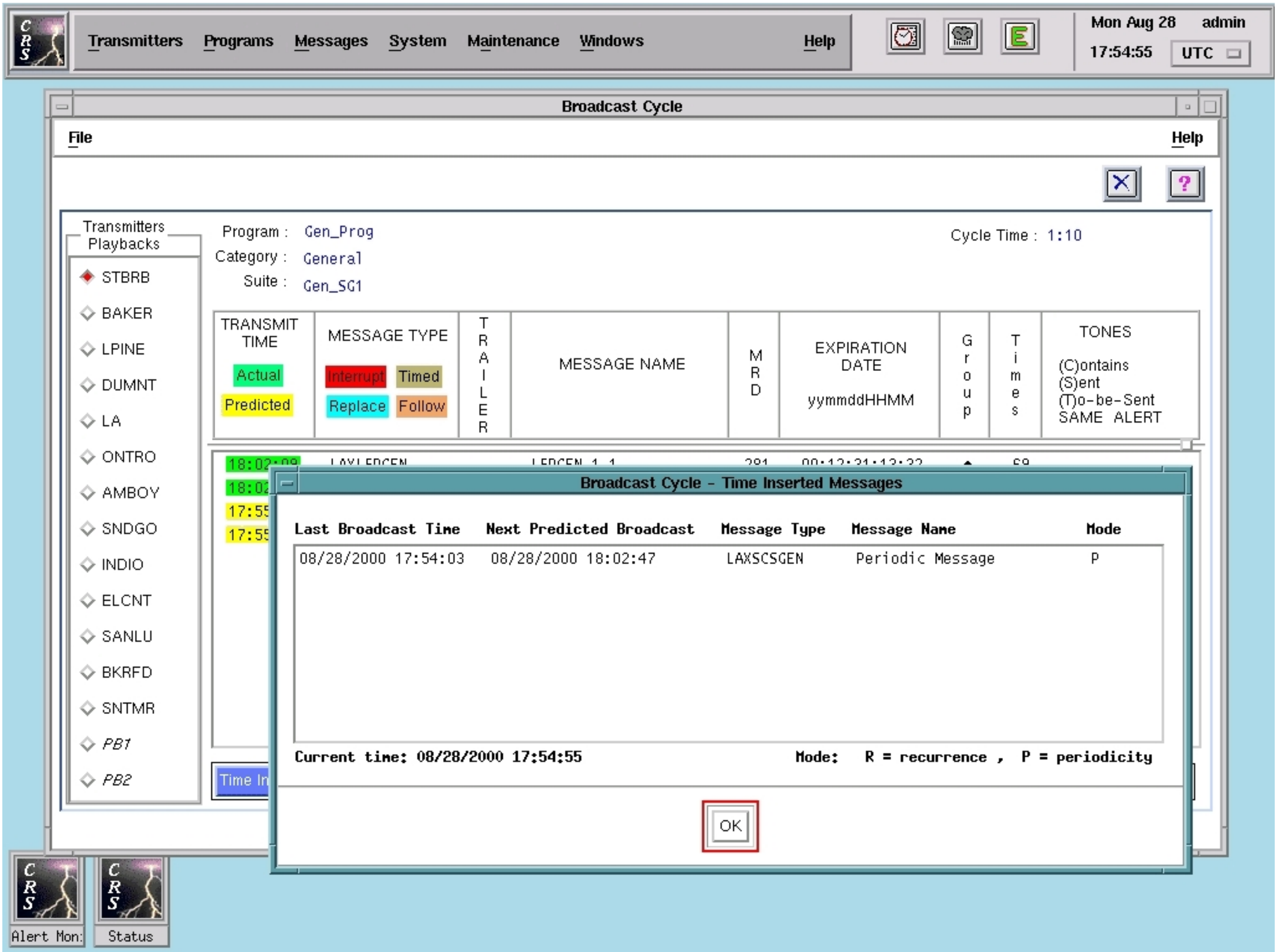
1. "C" - The message contains tones and they have been sent in a previous broadcast cycle.
2. "S" - The message contains tones and they have been sent in the current broadcast cycle.
3. "T" - The message contains tones and they have not been sent yet.

In support of the ***Broadcast Cycle*** window, there are nine buttons that are provided at the bottom of the window. These include:

a. *Time Insert*. Clicking this button will cause the ***Broadcast Cycle - Time Inserted Messages*** window (see Figure 29) to be displayed for the selected transmitter. This window will contain the Last Broadcast Time, Next Predicted Broadcast, Message Type, Message Name, and Mode for all currently active periodic messages associated with the selected transmitter's broadcast cycle. The window will also display the current time, and if a message is currently playing, it will indicate this as well. To return to the ***Broadcast Cycle*** window, click the *OK* button.

b. *Info*. Clicking this button will cause the ***Broadcast Cycle - Information*** window (see Figure 30) to be displayed for the currently selected cycle entry. This window will contain the Message Type, Title, Group, Disposition, Periodicity, Creation Date/Time, Effective Date, Trailer Mode, Trailer Name, Listening Areas/Zones, Recurrence Parameters, and Lead-in and Call-to-Action (CTA) values (i.e., Yes or No) for the selected entry. To return to the ***Broadcast Cycle*** window, click the *OK* button.

c. *Monitor*. Clicking this button will cause the audio output for the selected transmitter to be available through the headphones of the CRS.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
17:54:55
UTC
Broadcast Cycle
File
Help
Transmitters Playbacks
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2
TRANSMIT TIME
Actual
Predicted
MESSAGE TYPE
Interrupt
Timed
Replace
Follow
TRAILER
MESSAGE NAME
MRD
EXPIRATION DATE
yymmddHHMM
Group
Times
TONES
(C)ontains
(S)ent
(T)o-be-Sent
SAME ALERT
Broadcast Cycle - Time Inserted Messages
OK
Alert Mon:
Status

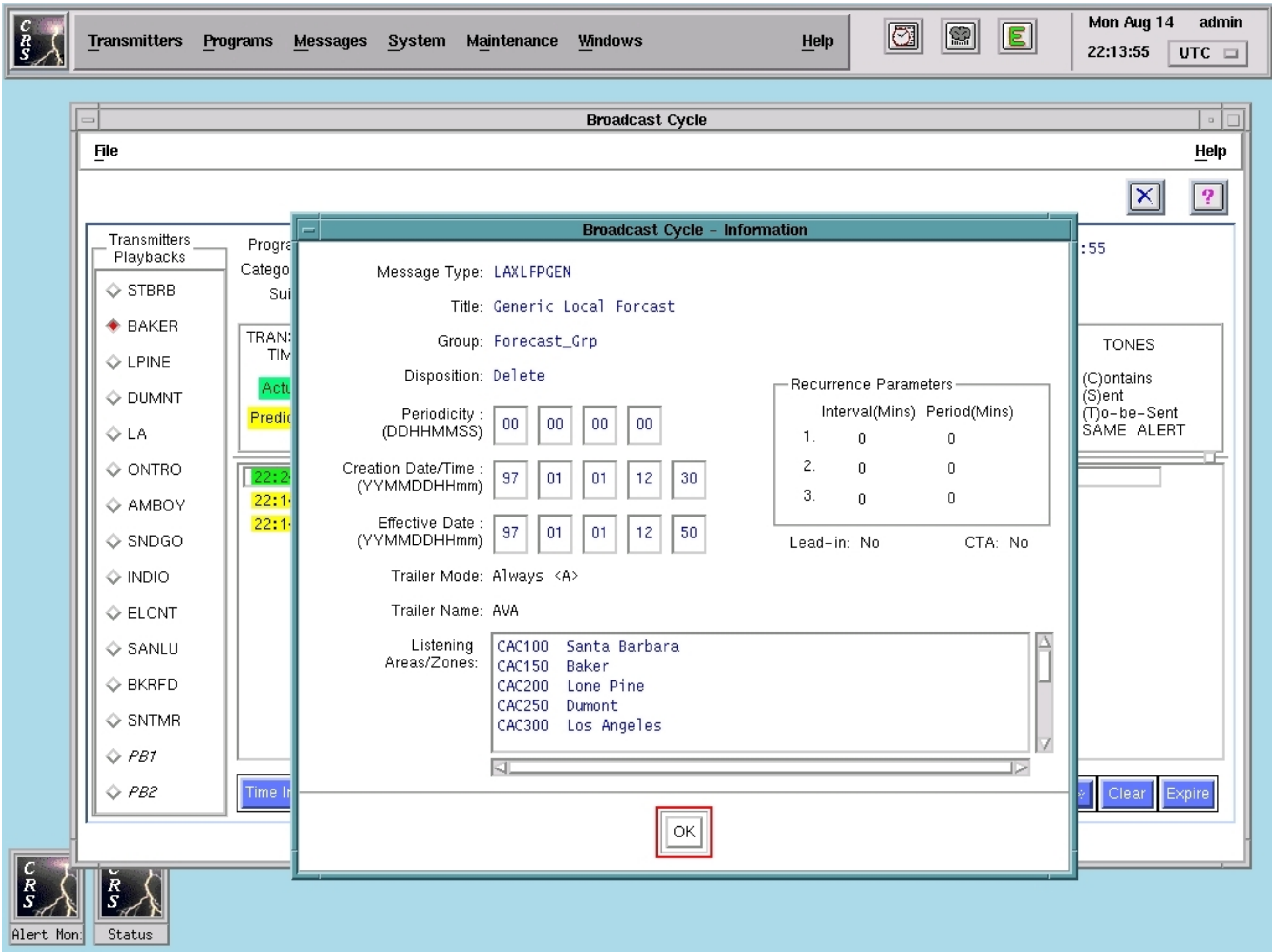
Program : Gen_Prog
Category : General
Suite : Gen_SG1
Cycle Time : 1:10

Last Broadcast Time	Next Predicted Broadcast	Message Type	Message Name	Mode
08/28/2000 17:54:03	08/28/2000 18:02:47	LAXSCSGEN	Periodic Message	P

Current time: 08/28/2000 17:54:55

Mode: R = recurrence , P = periodicity

Figure 29. Broadcast Cycle - Time Inserted Messages Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
22:13:55
UTC
Broadcast Cycle
File
Help
Transmitters
Playbacks
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2
TONES
(C)ontains
(S)ent
(T)o-be-Sent
SAME ALERT
Clear
Expire
Alert Mon:
Status
Broadcast Cycle - Information
OK

Message Type: LAXLFPGEN

Title: Generic Local Forcast

Group: Forecast_Grp

Disposition: Delete

Periodicity : (DDHHMMSS) 00 00 00 00

Creation Date/Time : (YYMMDDHHmm) 97 01 01 12 30

Effective Date : (YYMMDDHHmm) 97 01 01 12 50

Trailer Mode: Always <A>

Trailer Name: AVA

Listening Areas/Zones:
CAC100 Santa Barbara
CAC150 Baker
CAC200 Lone Pine
CAC250 Dumont
CAC300 Los Angeles

Recurrence Parameters

	Interval(Mins)	Period(Mins)
1.	0	0
2.	0	0
3.	0	0

Lead-in: No
CTA: No

Figure 30. Broadcast Cycle - Information Window

d. *Print*. Clicking this button will cause the current broadcast cycle for the selected transmitter to be output to the CRS printer.

e. *Cut*. Clicking this button will cause the currently selected cycle entry to be removed from the transmitter's broadcast cycle. This will not change the Broadcast Program or Broadcast Suite definitions previously established by you or another operator.

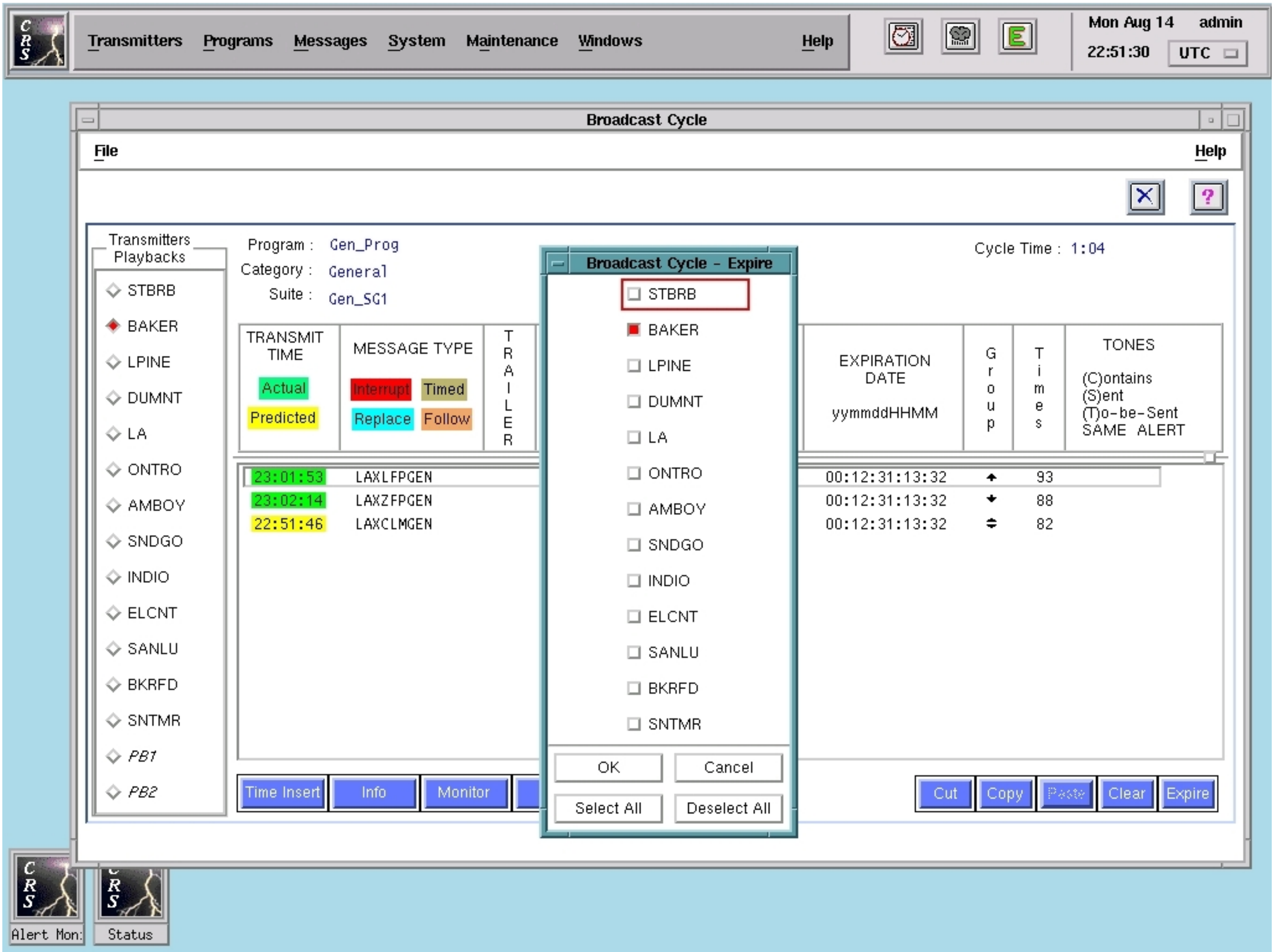
f. *Copy*. Clicking this button will cause the currently selected cycle entry to be copied to a clipboard buffer for later paste operations into another broadcast cycle. The clipboard buffer will retain its contents between views of different transmitter broadcast cycle displays.

g. *Paste*. Clicking this button will cause the contents of the clipboard buffer to be inserted after the currently selected cycle entry. By using this function in conjunction with the Copy operation, you may cause a message that is currently active in one transmitter's broadcast cycle to become active in another's.

h. *Clear*. Clicking this button will cause the contents of the clipboard buffer to be deleted.

i. *Expire*. Clicking this button will cause the ***Broadcast Cycle - Expire*** window (see Figure 31) to be displayed for the currently selected cycle entry. To "expire" the selected entry from individual (but not all) transmitters, make sure the toggle is set for each of the transmitters (i.e., there's a checkmark in each transmitter's box) and then click the *OK* button. To expire the selected cycle entry from all the respective transmitters, click the *Select All* button (to set the toggles for all appropriate transmitters) and then click the *OK* button. If you had selected one or more (but not all) transmitters for message expiration, you will receive confirmation to this effect in the status display area. If you had selected all transmitters (via the *Select All* button) for message expiration, you will be asked to confirm this request (by means of a confirmation dialog) before the message is expired.

In addition, a control handle is provided directly above the upper right-hand corner of the message display subwindow to allow you to expand the display area (of the subwindow). To do this, merely click on the handle and drag it in an upward fashion.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
22:51:30
UTC
Broadcast Cycle
File
Help
Transmitters Playbacks
◇ STBRB
◆ BAKER
◇ LPINE
◇ DUMNT
◇ LA
◇ ONTRO
◇ AMBOY
◇ SNDGO
◇ INDIO
◇ ELCNT
◇ SANLU
◇ BKRFD
◇ SNTMR
◇ PB1
◇ PB2
TRANSMIT TIME
Actual
Predicted
MESSAGE TYPE
Interrupt
Timed
Replace
Follow
TRAILER
EXPIRATION DATE
yymmddHHMM
Group
Times
TONES
(C)ontains
(S)ent
(T)o-be-Sent
SAME ALERT
Time Insert
Info
Monitor
Cut
Copy
Paste
Clear
Expire
Broadcast Cycle - Expire
☐ STBRB
☒ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
☐ SNDGO
☐ INDIO
☐ ELCNT
☐ SANLU
☐ BKRFD
☐ SNTMR
OK
Cancel
Select All
Deselect All
Alert Mon:
Status

Program : Gen_Prog
Category : General
Suite : Gen_SG1
Cycle Time : 1:04

```
23:01:53   LAXLFPGEN   00:12:31:13:32   ↑   93
23:02:14   LAXZFPGEN   00:12:31:13:32   ↓   88
22:51:46   LAXCLMGEN   00:12:31:13:32   ⇕   82
```

Figure 31. Broadcast Cycle - Expire Window

3.6.2.1.5. ROAMS

This submenu option allows you to access the ROAMS Data Query/Modify and ROAMS Alarm Titles Setup submenu options. These options are described below in paragraphs 3.6.2.1.5.1 and 3.6.2.1.5.2, respectively.

3.6.2.1.5.1. ROAMS Data Query/Modify

This submenu option allows you to view the most recently saved CRS data set values monitored and reported by a ROAMS Monitoring Unit (MU) for a given transmitter. It also allows you to query a ROAMS MU for the latest data set values available (from the ROAMS MU) for a transmitter, as well as change specific ROAMS MU data set parameters.[7] To perform the option, click the **Transmitter** menu, select "ROAMS", and then select "ROAMS Data Query/Modify". The ***ROAMS Data Query/Modify*** window will then be presented (see Figure 32). To continue, perform "a." or "b." below depending on the desired operation.

a. View/Modify Saved Data Set. If your intent is to view and/or modify CRS saved data set values for a particular transmitter, then perform the following steps:

   1. Click the radio button to the left of the desired transmitter and then click the *View Saved Data Set* button. The ***ROAMS Data Query/Modify*** window will then be updated to reflect saved ROAMS data set values for the specified transmitter (see Figure 33). This data will include the following alarm fields:

      - Status - indicates whether the alarm is active or inactive. "Active" means that an alarm has been recognized and reported. "Inactive" means that no alarm has been reported. This field is "display only".

      - Meaning - indicates the on/off label associated with the alarm and relates to the Status field above. That is, if the alarm status is "Active", then an "On" label will be displayed. If the alarm status is "Inactive", then an "Off" label will be displayed. This label can only be configured (or changed) from within the ***ROAMS Alarm Titles Setup*** window (see paragraph 3.6.2.1.5.2).

---

[7] *Site operators will be able to query and display ROAMS data but will not be able to edit ROAMS data. Only the CRS system administrator will be able to modify the data. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*

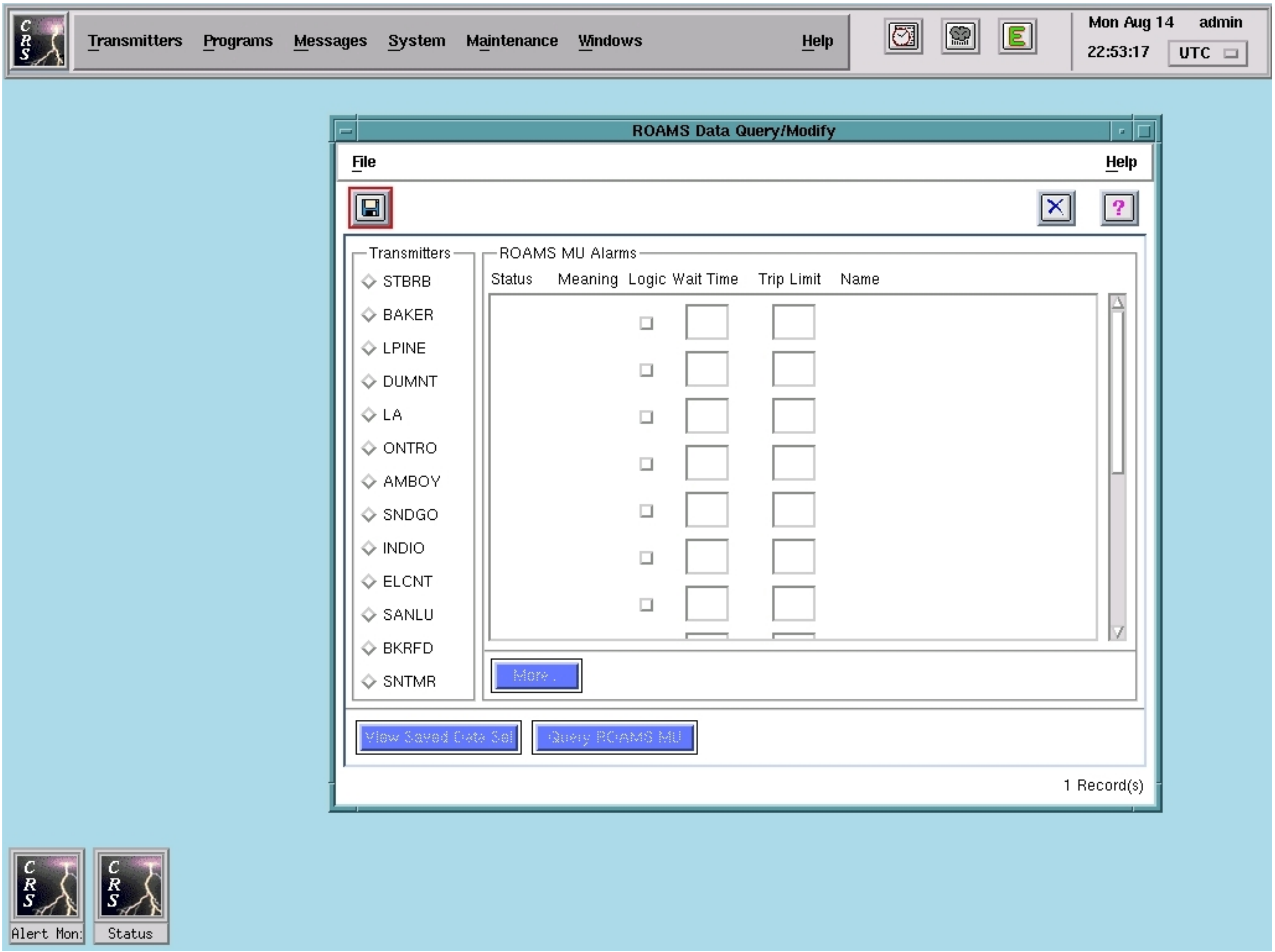
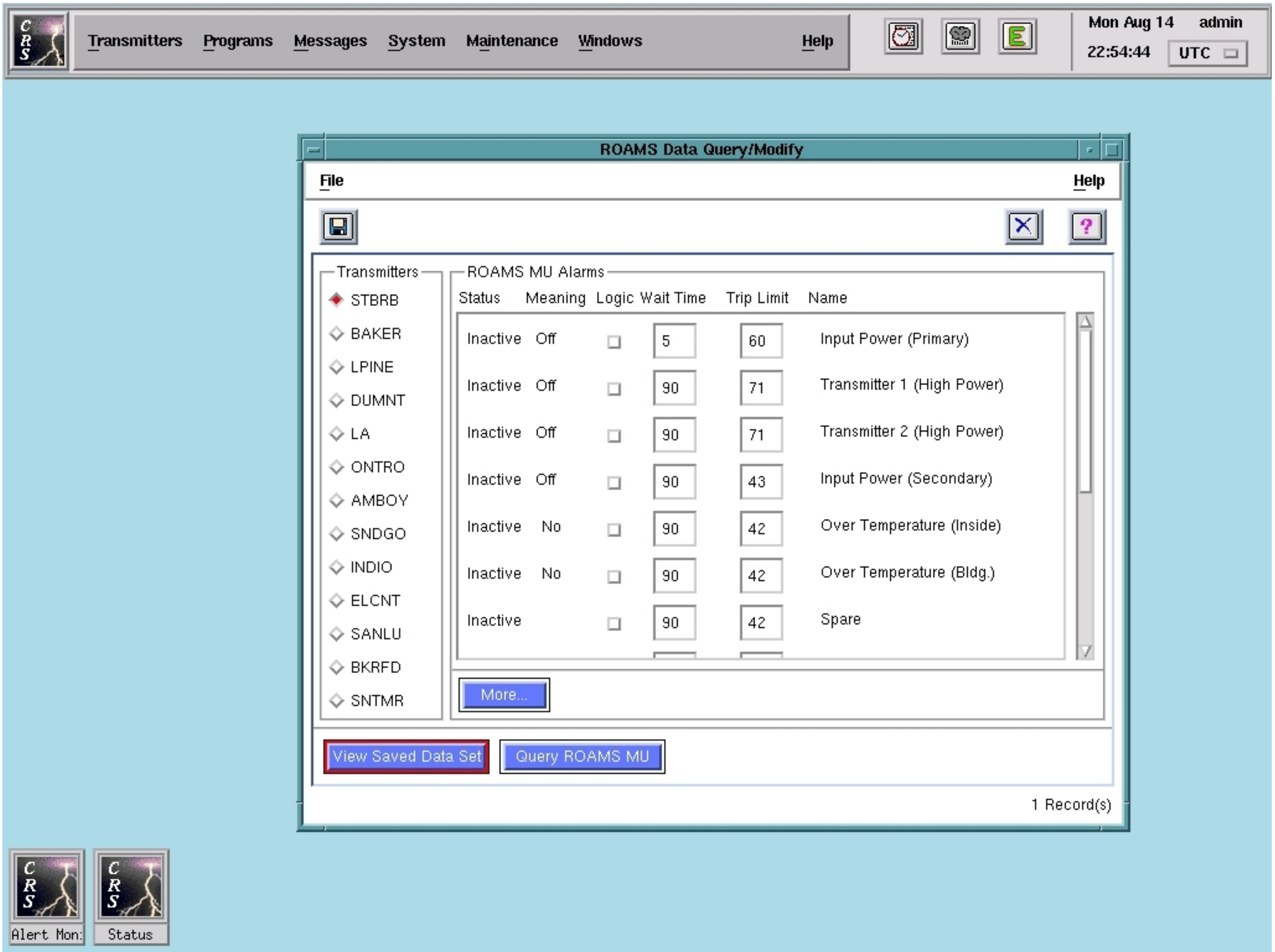

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
22:53:17
UTC
ROAMS Data Query/Modify
File
Help
Transmitters
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
ROAMS MU Alarms
Status
Meaning
Logic
Wait Time
Trip Limit
Name
More...
View Saved Data Set
Query ROAMS MU
1 Record(s)
Alert Mon:
Status

Figure 32. ROAMS Data Query/Modify Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
22:54:44
UTC
ROAMS Data Query/Modify
File
Help
Transmitters
● STBRB
◇ BAKER
◇ LPINE
◇ DUMNT
◇ LA
◇ ONTRO
◇ AMBOY
◇ SNDGO
◇ INDIO
◇ ELCNT
◇ SANLU
◇ BKRFD
◇ SNTMR
ROAMS MU Alarms
More...
View Saved Data Set
Query ROAMS MU
1 Record(s)
Alert Mon:
Status

Status	Meaning	Logic	Wait Time	Trip Limit	Name
Inactive	Off	☐	5	60	Input Power (Primary)
Inactive	Off	☐	90	71	Transmitter 1 (High Power)
Inactive	Off	☐	90	71	Transmitter 2 (High Power)
Inactive	Off	☐	90	43	Input Power (Secondary)
Inactive	No	☐	90	42	Over Temperature (Inside)
Inactive	No	☐	90	42	Over Temperature (Bldg.)
Inactive		☐	90	42	Spare

Figure 33. Updated ROAMS Data Query/Modify Window

- Logic - indicates whether the alarm is set. To set or unset the alarm, click the associated toggle. (A filled-in toggle means that the alarm is set.)

- Wait Time - indicates the time in seconds to wait before triggering alarm. The acceptable range of values is 0 to 120.

- Trip Limit - indicates the alarm trip voltage, which is given as a binary number. The acceptable range of binary values is 0 to 178.

- Name - indicates the name associated with the alarm. This label can only be configured (or changed) from within the ***ROAMS Alarm Titles Setup*** window (see paragraph 3.6.2.1.5.2).

2. Click the *More...* button, after which additional data will be displayed via the ***ROAMS MU Data*** window (see Figure 34). This data will include the following fields:

   - Site Number - indicates the site number of the ROAMS MU. The acceptable range of values is 3 ASCII digits.

   - Radio Channel - allows you to specify a radio channel number. The acceptable range of values is 0 to 6.

   - Channel Freq: - indicates the frequency of the channel specified in the Radio Channel field. This field is "display only".

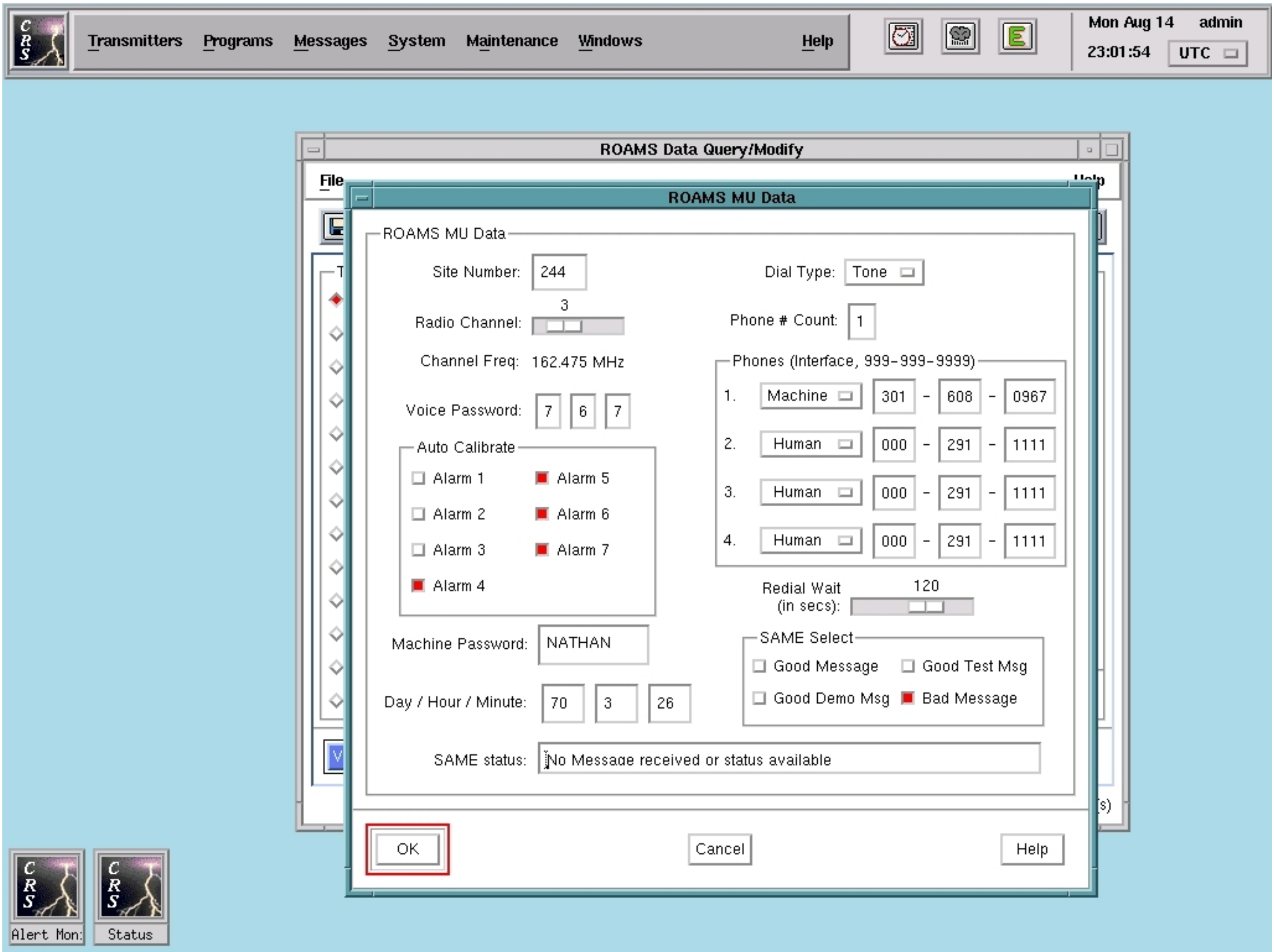
   - Voice Password - indicates the voice password that must be entered (via the telephone key pad) when attempting to dial-up the ROAMS MU. The acceptable range of values for each of the 3 digits comprising this number is 1 to 9.

   - Auto Calibrate - allows you to turn on or off the auto calibration for alarms 1 to 7.

   - Machine Password - indicates the password for the ROAMS MU. It is used by the ROAMS MU to dial into CRS. (Please **note** that this password must match the one used by CRS to dial into the ROAMS MU (see Password field in Figure 113)). The acceptable range of values is 6 ASCII characters.

   - Day/Hour/Minute - indicates the timestamp for the saved data set values in the form ddd/hh/mm, where "ddd" equals the day, "hh" equals the hour, and "mm" equals the minutes. The acceptable range of values for the fields is 1 to 366 for the day, 0 to 23 (UTC) for the hour, and 0 to 59 for the minutes.

   - SAME Status - indicates the status of the last message received by the ROAMS MU from CRS. This field is "display only".


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
23:01:54
UTC
ROAMS Data Query/Modify
File
Help
ROAMS MU Data
OK
Cancel
Help
Alert Mon:
Status

ROAMS MU Data

Site Number: 244

Radio Channel: 3

Channel Freq: 162.475 MHz

Voice Password: 7 6 7

Auto Calibrate

☐ Alarm 1
☐ Alarm 2
☐ Alarm 3
☑ Alarm 4
☑ Alarm 5
☑ Alarm 6
☑ Alarm 7

Machine Password: NATHAN

Day / Hour / Minute: 70 3 26

Dial Type: Tone

Phone # Count: 1

Phones (Interface, 999-999-9999)

1. Machine 301 - 608 - 0967
2. Human 000 - 291 - 1111
3. Human 000 - 291 - 1111
4. Human 000 - 291 - 1111

Redial Wait (in secs): 120

SAME Select

☐ Good Message
☐ Good Test Msg
☐ Good Demo Msg
☑ Bad Message

SAME status: No Message received or status available

Figure 34. ROAMS MU Data Window

- Dial Type - indicates the type of dialing, i.e., Tone or Pulse, which can be configured via the associated option button.
- Phone # Count - indicates the total number of telephone numbers used to call the CRS. The acceptable range of values is 1 to 4.
- Phones (Interface, 999-999-9999) - indicates the telephone number(s) used to dial the CRS. Telephone number 1 is called first, followed by Telephone numbers 2 through 4 (i.e., if more than one number is specified). The option button to the left of each telephone number field allows you to specify or choose between "Human" or "Machine" interface.
- Redial Wait - indicates the time in seconds to wait before redialing. The acceptable range of values is 1 to 180.
- SAME Select - indicates the SAME performance selections, i.e., Good Message, Good Demo Msg, Good Test Msg, and Bad Message, all of which are selectable via the associated toggles. SAME Select is used to select which SAME messages are reported as alarm conditions.

b. Query/Modify ROAMS MU Data. If your intent is to query and/or modify ROAMS MU data set values for a particular transmitter, then perform the following steps:

1. Click the radio button to the left of the desired transmitter and then click the *Query ROAMS MU* button. CRS will then query the ROAMS MU for the latest data set values available (from the ROAMS MU) for the specified transmitter. The ***ROAMS Data Query/Modify*** window will then be updated to reflect the retrieved values.
2. Access and modify any of the ROAMS MU data set values by performing the steps described under "a." above.

If you have modified any of the saved or retrieved data set values and desire to apply them, click the *OK* button if you're within the ***ROAMS MU Data*** window and then click the APPLY hotkey (in the hotkey menu bar); otherwise, click the APPLY hotkey directly.

Please **note** that regardless of whether you initially accessed ROAMS MU data via the *View Saved Data Set* or *Query ROAMS MU* buttons, once you apply your changes via the APPLY hotkey, CRS will send a message request to the ROAMS MU to make the changes. Upon successful completion of the changes within the ROAMS MU, these same changes will be saved within CRS, as well, and you will receive confirmation to this effect in the status display area.

3.6.2.1.5.2. ROAMS Alarm Titles Setup

This submenu option allows you to create, view, or edit the alarm name titles and alarm on/off label values per alarm for each transmitter (see Fault and Name fields in the ***ROAMS Data Query/Modify*** window--Figure 32).[8] To perform the option, click the **Transmitter** menu, select "ROAMS", and then select "ROAMS Alarm Titles Setup". The ***ROAMS Alarm Titles Setup*** window will then be presented (see Figure 35). To continue, perform "a." or "b." below depending on the desired operation.

a. Create ROAMS Alarm Titles. If your intent is to create alarm name titles and alarm on/off label values, then perform the following steps:

   1. Select the desired transmitter by clicking the radio button to the left of the transmitter.

   2. Select the desired alarm number (i.e., 1 to 14) by clicking the option button to the right of the Alarm Number field and picking the number from the resulting option list.

   3. Enter the desired alarm name in the Name field. This field will accept up to 40 ASCII characters.

   4. Enter the desired label text in the Alarm ON Label field. This field will accept up to 5 ASCII characters.

   5. Enter the desired label text in the Alarm OFF Label field. This field will accept up to 5 ASCII characters.

   6. Click the SAVE hotkey (in the hotkey menu bar). The ROAMS Alarm Titles will subsequently be saved, and you will receive confirmation to this effect in the status display area.

b. View/Edit ROAMS Alarm Titles. If your intent is to view or edit alarm name titles and alarm on/off label values, then perform the following steps:

   1. Select the desired transmitter by clicking the radio button to the left of the transmitter.

---

[8] *Site operators will be able to display but not create or edit ROAMS alarm titles/label values. Only the CRS system administrator will be able to create or edit alarm titles/label values. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*

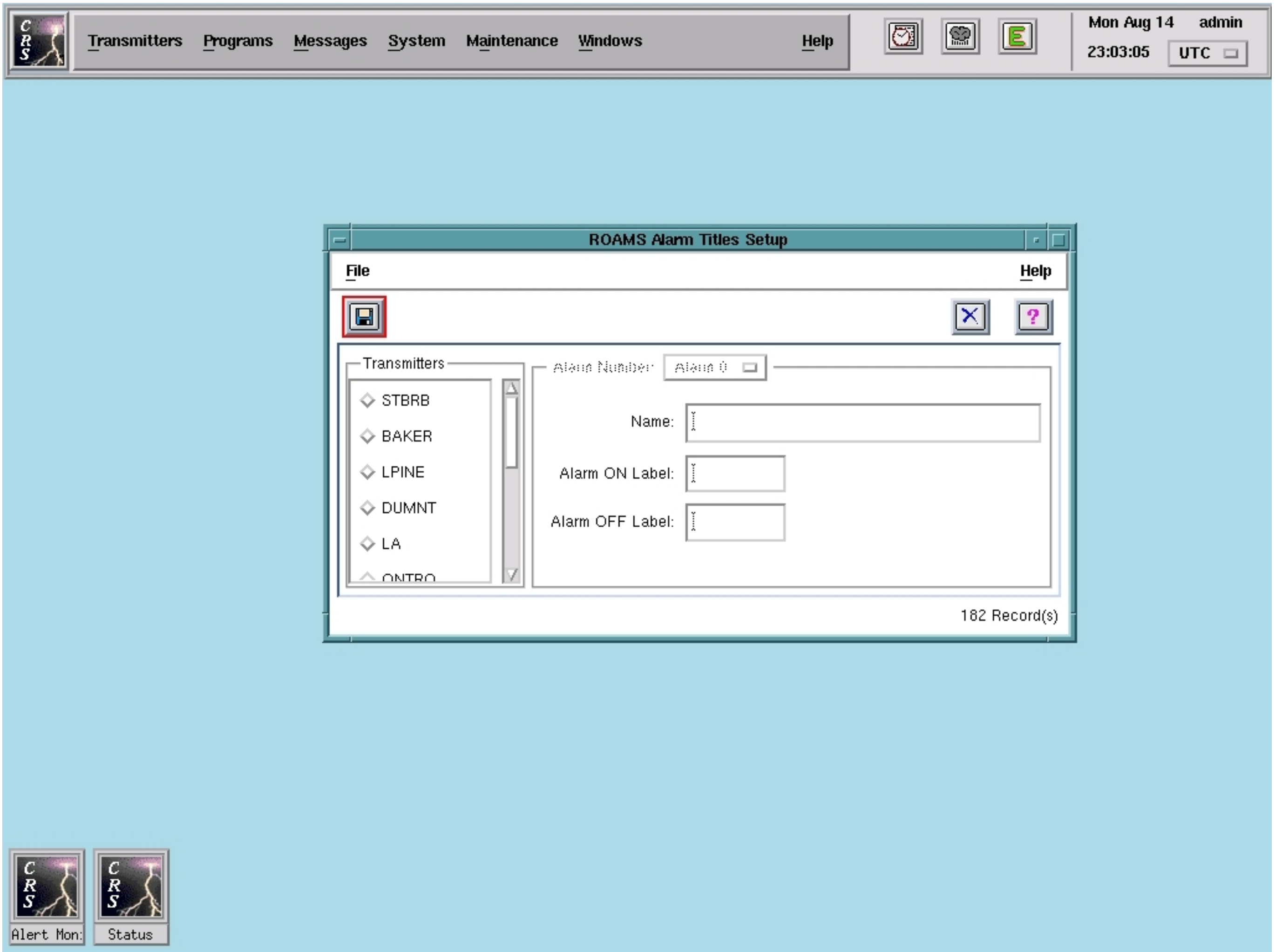

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
23:03:05
UTC
ROAMS Alarm Titles Setup
File
Help
Transmitters
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
Alarm Number
Alarm 0
Name:
Alarm ON Label:
Alarm OFF Label:
182 Record(s)
Alert Mon:
Status

Figure 35. ROAMS Alarm Titles Setup Window

2. Click the option button to the right of the Alarm Number field and then select the desired alarm number from the option list. The Name, Alarm ON Label, and Alarm OFF Label fields will update to reflect those label names associated with the selected alarm.

3. View/edit alarm name title and alarm on/off label values for the selected transmitter and alarm number. If editing the alarm name title and/or alarm on/off label values, follow Steps 3 through 6 described under "a." above, since the procedures for editing ROAMS alarm titles/label values are essentially the same as those for creating ROAMS alarm titles/label values.

3.6.2.2. Programs Menu

The **Programs** menu bar component features two submenu options, i.e., Broadcast Program and Program Assignment, which allow you to perform specific program-related functions. These options are described below in paragraphs 3.6.2.2.1 and 3.6.2.2.2, respectively.

3.6.2.2.1. Broadcast Program

This submenu option allows you to create, view, or edit broadcast programs. To perform the option, click the **Programs** menu and then select "Broadcast Program". The ***Broadcast Program*** window will then be presented (see Figure 36). To continue, perform "a." or "b." below depending on the desired operation.

a. Create Broadcast Program. If your intent is to create a broadcast program, then perform the following steps:

1. Click the CREATE hotkey (in the hotkey menu bar).

2. Enter the desired program name in the Program Name field. This field will accept up to 40 ASCII characters.

3. Specify and build desired broadcast categories, i.e., General, High, and Exclusive, as follows, with General being the lowest priority and Exclusive being the highest priority. (*A category simply defined is a collection of broadcast suites that are prioritized or "ordered" within the category.*)

   - Click the desired category button, after which the selected button and the display area will be highlighted in the same color.

   - Assign suites to the category by first clicking the *Add* button, after which the ***Suite List*** window will be presented (see Figure 37). Then, actually assign the suites by highlighting them and then clicking the *OK* button.

   - Once you have assigned all desired suites to the selected category, use the *Up* and *Down* arrow buttons, as necessary, to move a suite up or down (or "prioritize" it) within the list of suites. The *Remove* button is also available to allow you to remove any selected (or highlighted) suite.

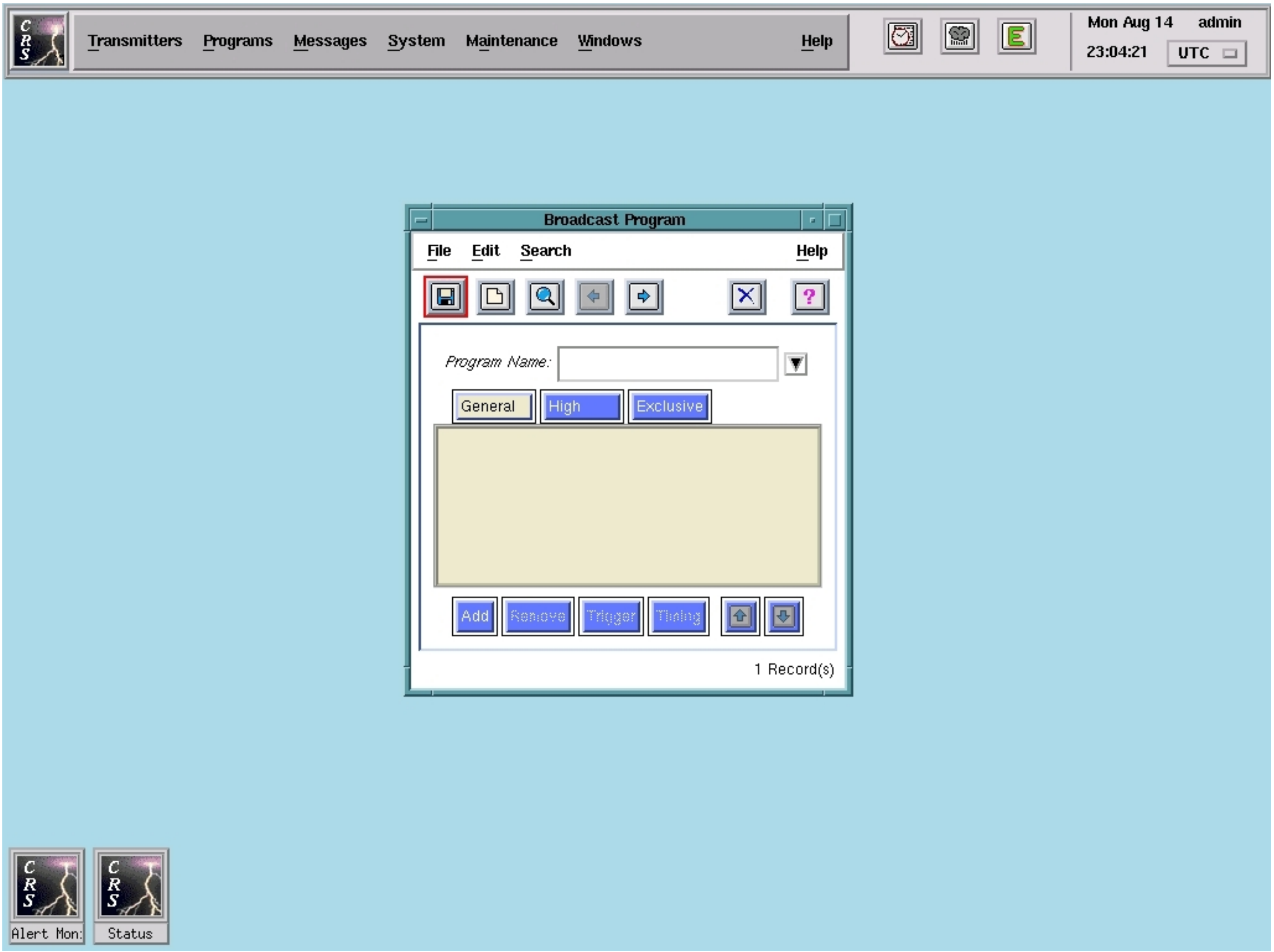

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
23:04:21
UTC
Broadcast Program
File
Edit
Search
Help
Program Name:
General
High
Exclusive
Add
Remove
Trigger
Timing
1 Record(s)
Alert Mon:
Status

Figure 36. Broadcast Program Window

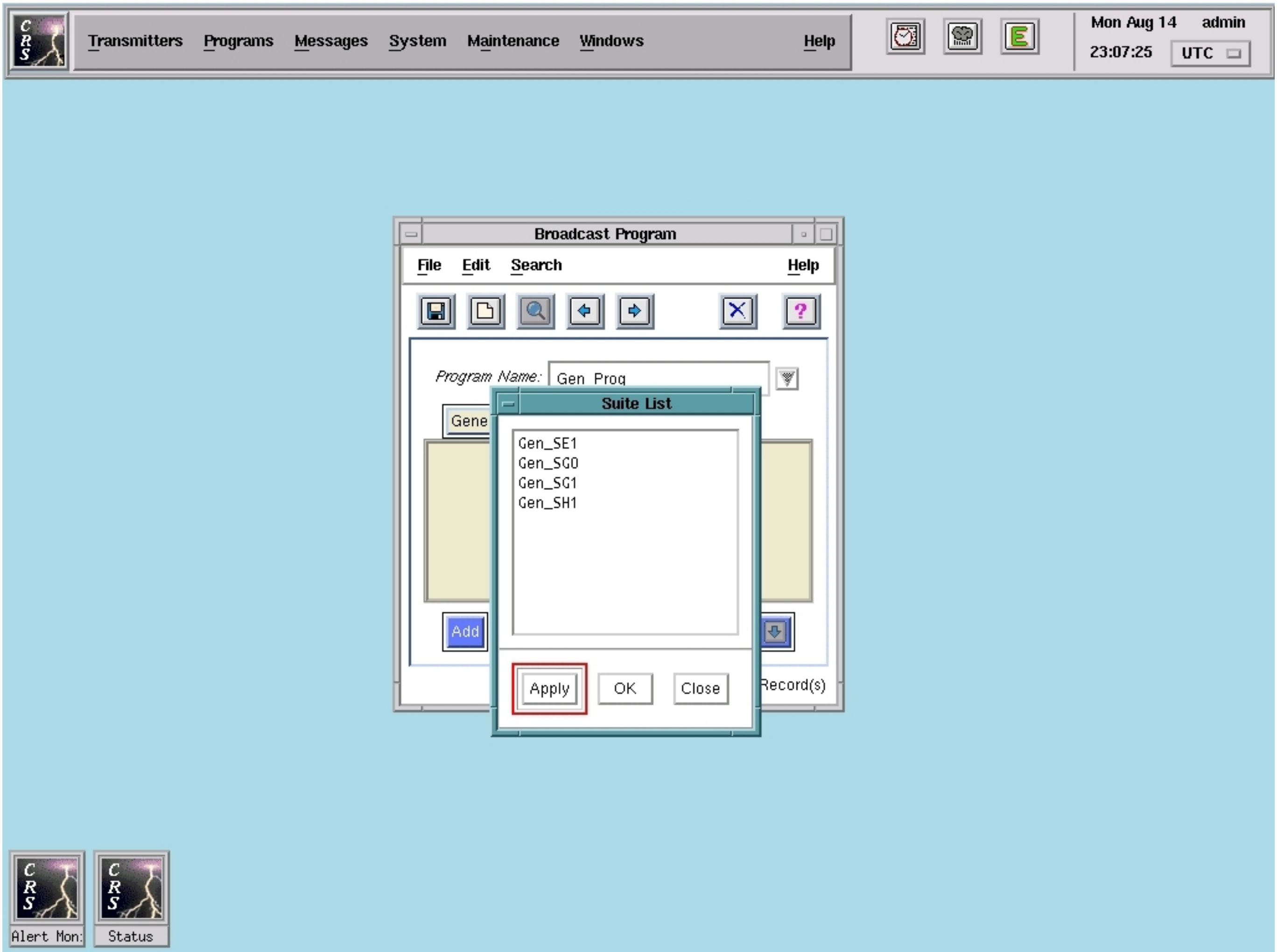

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
23:07:25
UTC
Broadcast Program
File
Edit
Search
Help
Program Name:
Gen_Prog
Gene
Suite List
Gen_SE1
Gen_SG0
Gen_SG1
Gen_SH1
Add
Apply
OK
Close
Record(s)
Alert Mon
Status

Figure 37. Suite List Window

4. After building a broadcast category, repeat Step 3 for any other categories you wish to create.

5. If you are building a General broadcast category, define timing parameters for any associated suites by highlighting the suite and then clicking the *Timing* button. The ***Suite Timing*** window will then be presented (see Figure 38), displaying the following fields:

   - Order by Time - indicates whether you want messages associated with the selected suite to be ordered based on their effective date/time values. To select or deselect, click the toggle button to the left of the field (a filled in toggle button means the "Order by Time" is enabled and will be activated for the suite).

   - Timeout - indicates the number of minutes (i.e., 0 to 255) after which the message suite will time out. To specify or change the value, move the slider to the desired setting.

   - Start Date/Time - indicates the effective date/time after which the message suite will be broadcast from CRS. Enter the value in the form:

     YYMMDDHHmm

     where "YY" indicates the year (i.e., 00 to 99), "MM" indicates the month (i.e., 01 to 12), "DD" indicates the day of the month (i.e., 01 to 31), "HH" indicates the hour (i.e., 00 to 23), and "mm" indicates the minute (i.e., 00 to 59).

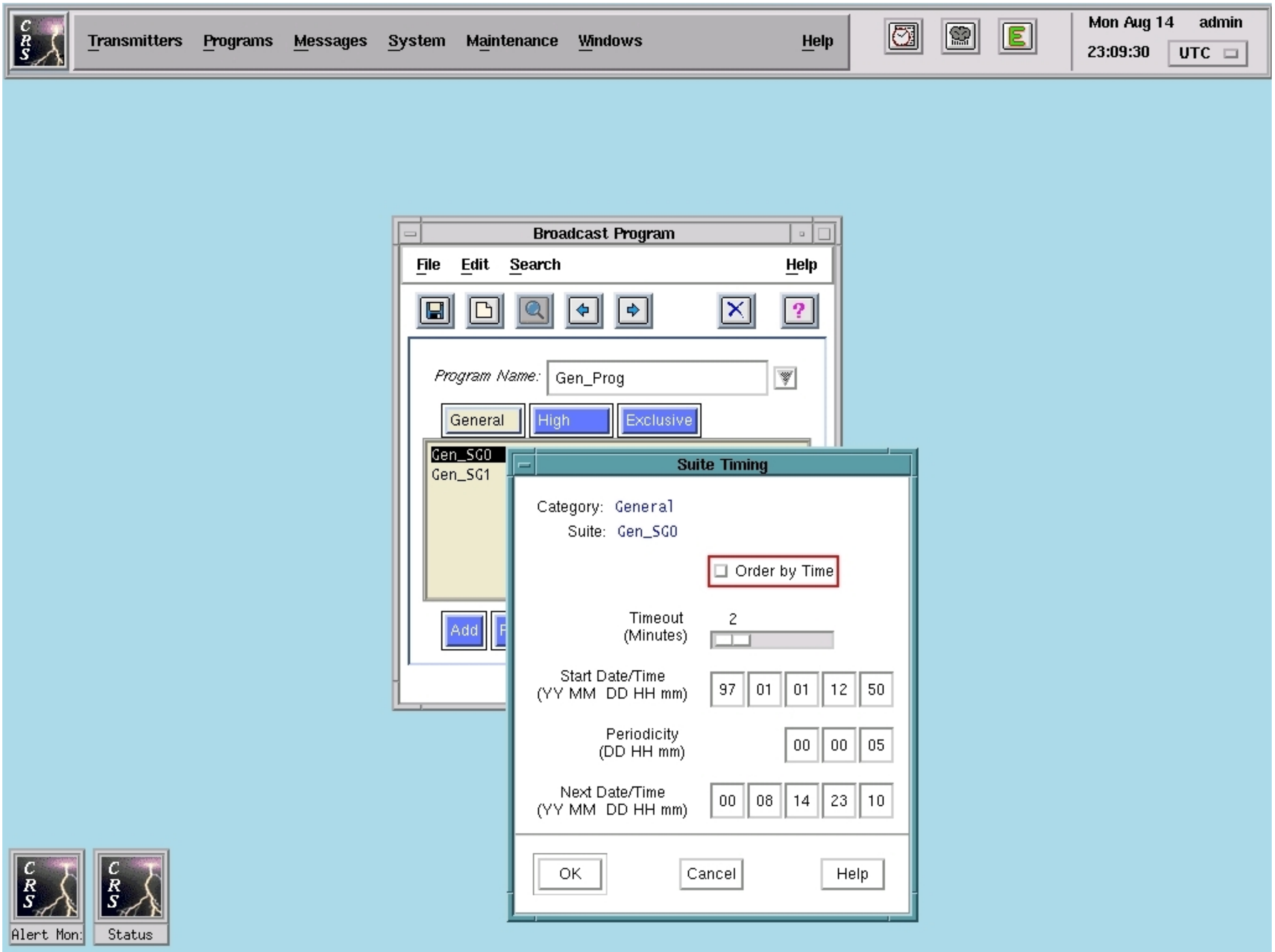
   - Periodicity - indicates the frequency (up to a maximum of 99 days, 23 hours, and 59 minutes) in which the message suite will be rebroadcast from CRS. Enter the value in the form:

     DDHHmm

     where "DD" indicates the number of days (i.e., 00 to 99), "HH" indicates the number of hours (i.e., 00 to 23), and "mm" indicates the number of minutes (i.e., 00 to 59).

   - Next Date/Time - indicates the next date/time after which the message suite will be rebroadcast from CRS. This field is automatically calculated for you by CRS and hence is "display only".

   Apply your timing parameters by clicking the *OK* button. The ***Suite Timing*** window will be closed and you will be returned to the ***Broadcast Program*** window.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
23:09:30
UTC
Broadcast Program
File
Edit
Search
Help
General
High
Exclusive
Gen_SG0
Gen_SG1
Add
Suite Timing
OK
Cancel
Help
Alert Mon:
Status

Program Name: Gen_Prog

Category: General

Suite: Gen_SG0

☐ Order by Time

Timeout (Minutes): 2

Start Date/Time (YY MM DD HH mm): 97 01 01 12 50

Periodicity (DD HH mm): 00 00 05

Next Date/Time (YY MM DD HH mm): 00 08 14 23 10

Figure 38. Suite Timing Window

6. Repeat Step 5 for any other suites for which you may want to define timing parameters.

7. If you are building a High or an Exclusive broadcast category, define message triggers for any associated suites. (*A message trigger simply defined is a message that is used to direct CRS to switch from the currently operating broadcast suite to another broadcast suite associated with the incoming triggering message.*) To define the triggers, you must highlight the desired suite and then click the *Trigger* button, after which the ***Suite Message Triggers*** window will be presented (see Figure 39). (The window will contain those message types previously defined for the selected suite via the ***Broadcast Suites*** window shown in Figure 44). Then, select/deselect message triggers for the suite by clicking the toggle button to the left of the message type(s). (A filled in toggle button means the message trigger is enabled for the message type, and a "<g>" to the right of the toggle means the trigger is actually a message group, as shown in Figure 44.) When finished selecting/deselecting message triggers, click the *OK* button, whereupon you will be returned to the ***Broadcast Program*** window.

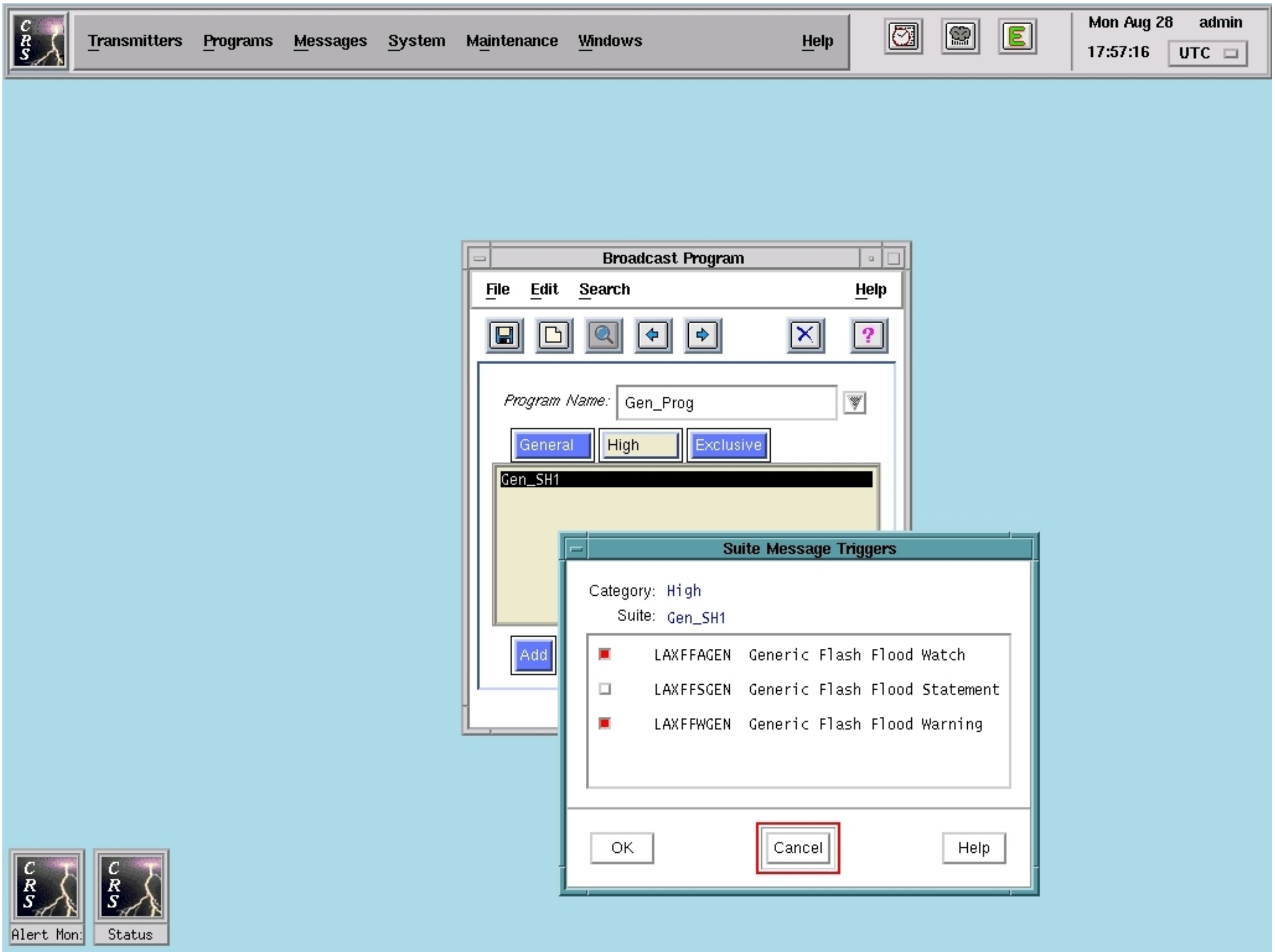
8. Repeat Step 7 for any other suites for which you may want to define message triggers.

9. Click the SAVE hotkey (in the hotkey menu bar). The broadcast program will subsequently be saved, and you will receive confirmation to this effect in the status display area.

b. View/Edit Broadcast Program. If your intent is to view or edit a broadcast program, then perform the following steps:

   1. Click the list button to the right of the Program Name field and select the desired program from the pick-list by double-clicking it. The program will be transferred to the Program Name field, and the subwindow associated with the *General*, *High*, and *Exclusive* category buttons will update to reflect any suites previously defined for the General category (which is the default).

   2. View/edit the selected program. If editing the program, follow Steps 3 through 9 described under "a." above, since the procedures for editing broadcast programs are essentially the same as those for creating broadcast programs.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
17:57:16
UTC
Broadcast Program
File
Edit
Search
Help
General
High
Exclusive
Gen_SH1
Add
Alert Mon:
Status
OK
Cancel
Help

Suite Message Triggers

Program Name: Gen_Prog

Category: High

Suite: Gen_SH1

☑ LAXFFAGEN Generic Flash Flood Watch

☐ LAXFFSGEN Generic Flash Flood Statement

☑ LAXFFWGEN Generic Flash Flood Warning

Figure 39. Suite Message Triggers Window

3.6.2.2.2. Program Assignment

This submenu option allows you to assign a broadcast program to a transmitter or playback channel. To perform the option, click the **Programs** menu and then select "Program Assignment". The ***Program Assignment*** window will then be presented (see Figure 40). To continue, perform "a." or "b." below depending on the desired operation.

a. Assign Program to Transmitter. If your intent is to assign a program to a particular transmitter, then perform the following steps:

1. Select the desired transmitter by clicking the radio button to the left of the transmitter. The Program field and the Suite Scheduling subwindow will update to reflect the program and associated suite currently in progress on the transmitter (i.e., if there is a program currently being broadcast on the transmitter), and the selected transmitter will be displayed to the right of the *Scheduling Transmitter* button (see Figure 41). If there is no program currently assigned to the selected transmitter, you will receive the following message in the form of an ***Information*** window:

   This Transmitter/Playback has no program assigned to it.

2. If your intent is to make manual scheduling changes to the current program and then re-assign it to the selected transmitter, then go to Step 4. Otherwise, if your intent is to assign another program to the selected transmitter or there is no program currently assigned to the selected transmitter, then go to Step 3.

3. Click the list button to the right of the Program field and then select the desired program from the pick-list. The Suite Scheduling subwindow will update to reflect the General category suite(s) assigned to the program. If there are multiple General category suites defined for the program, the last suite in the list will be highlighted, meaning that it will be the first suite to be broadcast once you have assigned the program to the transmitter.

4. Manually schedule suites, if desired, by first using the appropriate category button (i.e., *General*, *High*, or *Exclusive*) to display the associated suites. Then, highlight the suite and perform Step 5. (This will cause the broadcast on the selected transmitter to be recomputed using the selected program and the selected

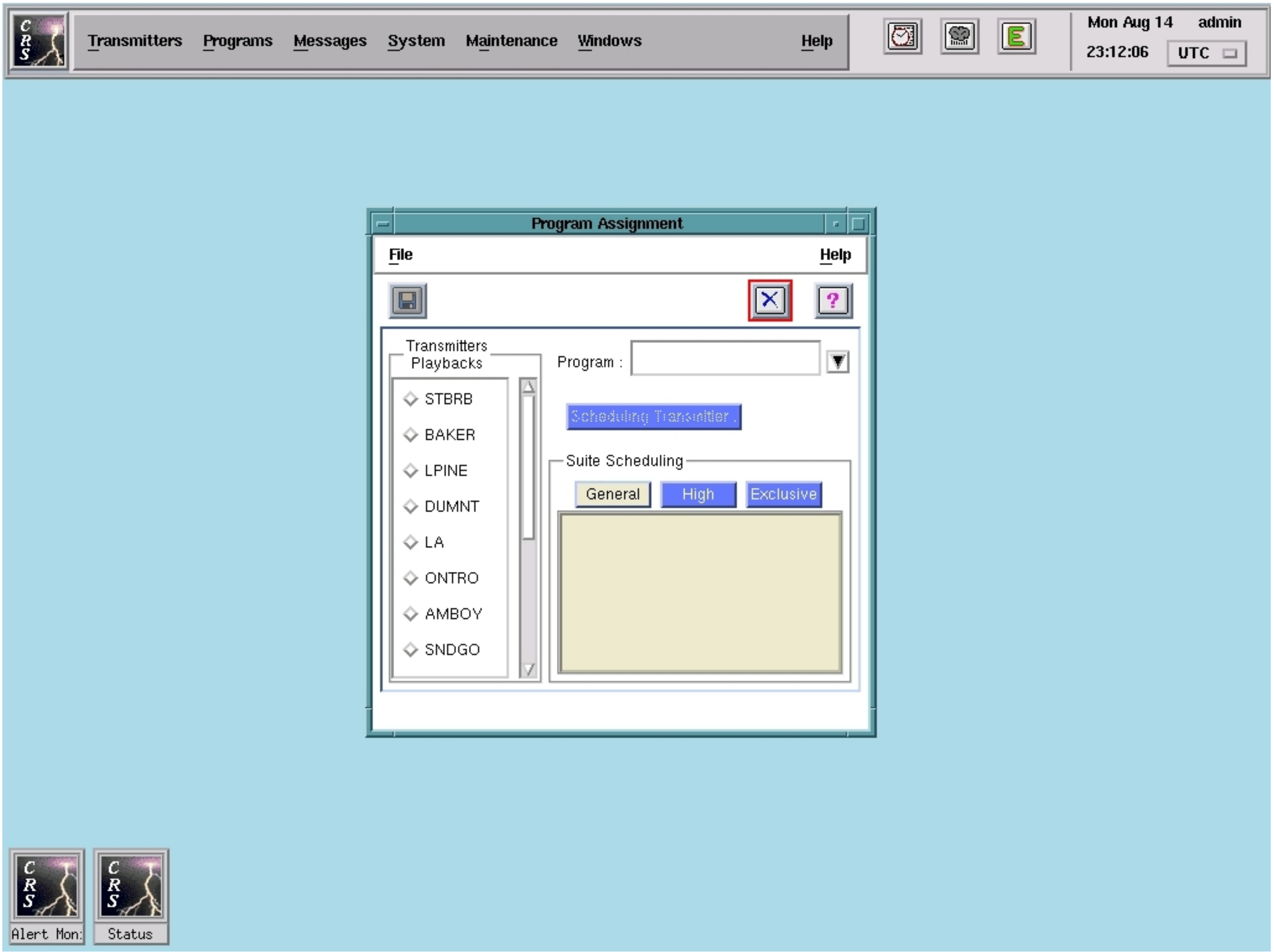
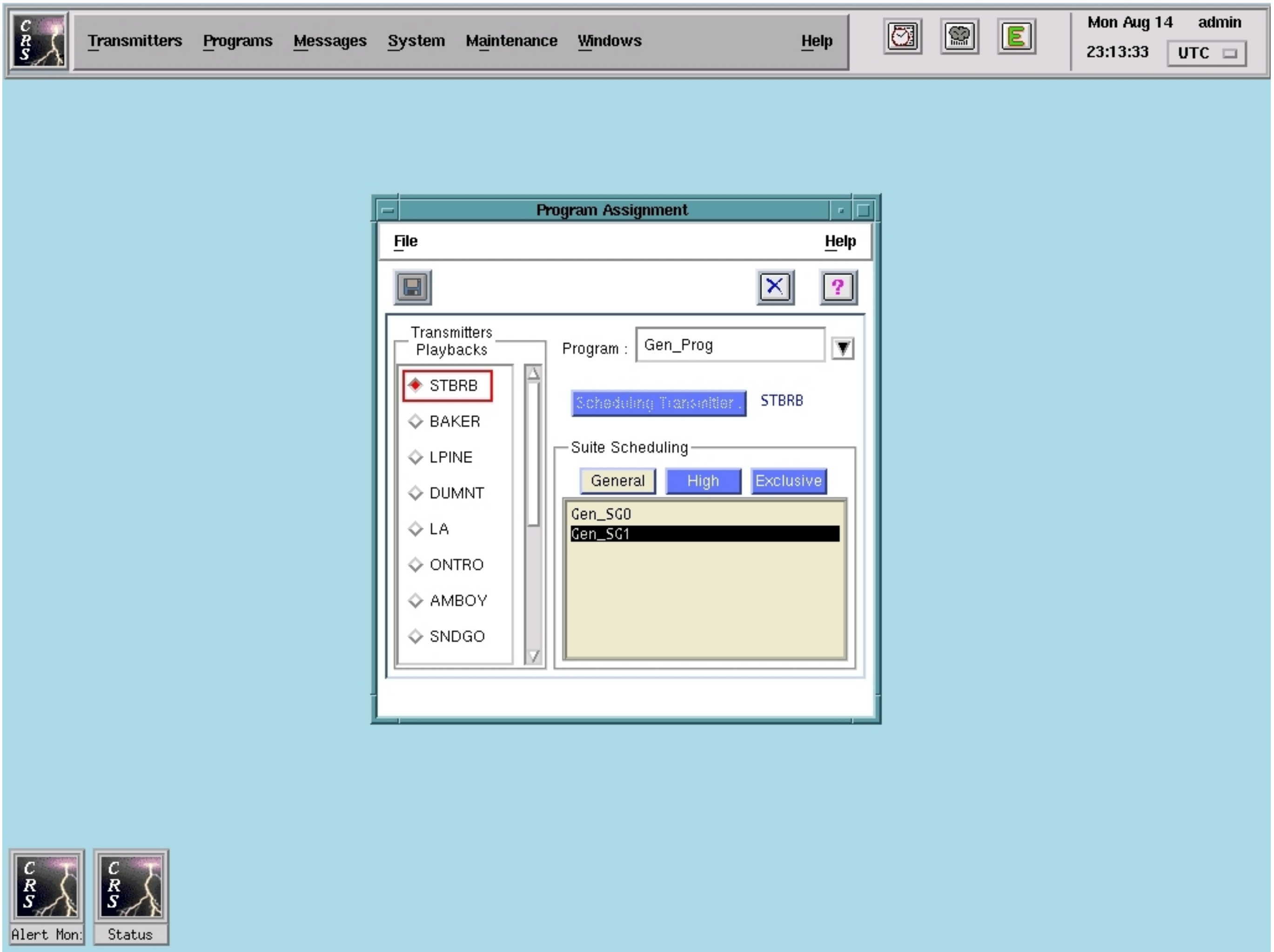

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
23:12:06
UTC
Program Assignment
File
Help
Transmitters
Playbacks
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
Program :
Scheduling Transmitter
Suite Scheduling
General
High
Exclusive
Alert Mon:
Status

Figure 40. Program Assignment Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
23:13:33
UTC
Program Assignment
File
Help
Transmitters
Playbacks
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
Scheduling Transmitter
Suite Scheduling
General
High
Exclusive
Alert Mon:
Status

Program : Gen_Prog

Scheduling Transmitter STBRB

Gen_SG0
Gen_SG1

Figure 41. Program Assignment Window (“Transmitter” Selected)

suite.) Otherwise, if you don’t want to manually schedule suites, then go to Step 5.

5. Click the APPLY hotkey (in the hotkey menu bar). The selected program will then be assigned to the specified transmitter (or re-assigned to the specified transmitter if you made manual scheduling changes), and you will receive confirmation to this effect in the status display area.

b. Assign Program to Playback Channel. If your intent is to assign a program to a particular playback channel, then perform the following steps:

1. Select the desired playback channel by clicking the radio button to the left of the channel. (Like the Transmitter option described under "a." above, you will receive a notification message in the form of an ***Information*** window if there is no program currently assigned to the selected playback channel.)

2. Click the list button to the right of the Program field and then select the desired program from the pick-list. The Suite Scheduling subwindow will update to reflect the General category suites assigned to the selected program.

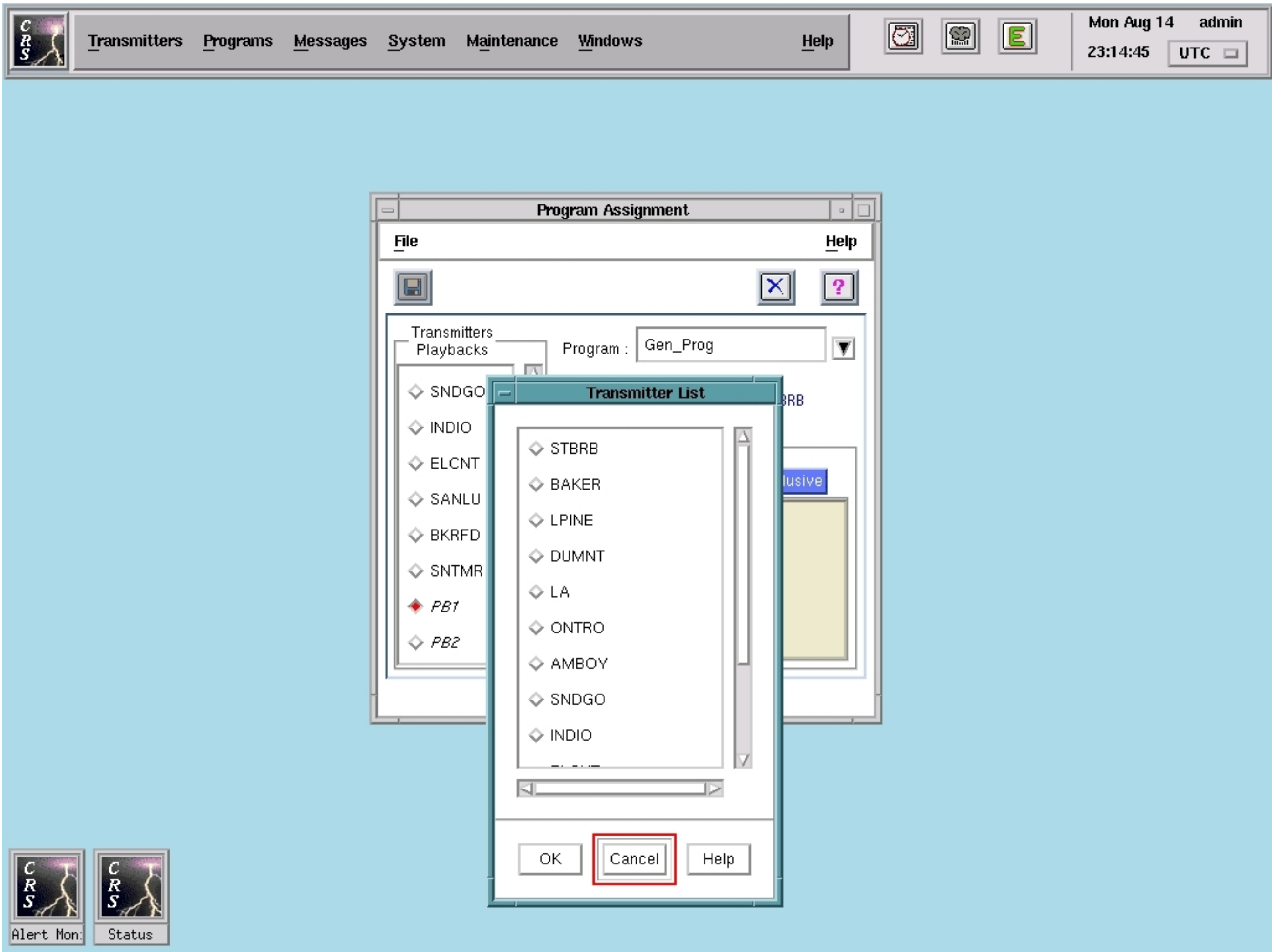
3. Select the transmitter whose attributes you wish to emulate during your playback session. Do this by performing the following substeps:

   - Click the *Scheduling Transmitter* button. The ***Transmitter List*** window will then be presented (see Figure 42).

   - Select the desired transmitter by clicking the radio button to the left of the transmitter and then clicking the *OK* button. The ***Transmitter List*** window will be closed and you will be returned to the ***Program Assignment*** window. You will observe that the selected transmitter will now be displayed to the right of the *Scheduling Transmitter* button (see Figure 43).

4. Make any manual scheduling changes, if desired, by performing Step 4 described under "a." above.

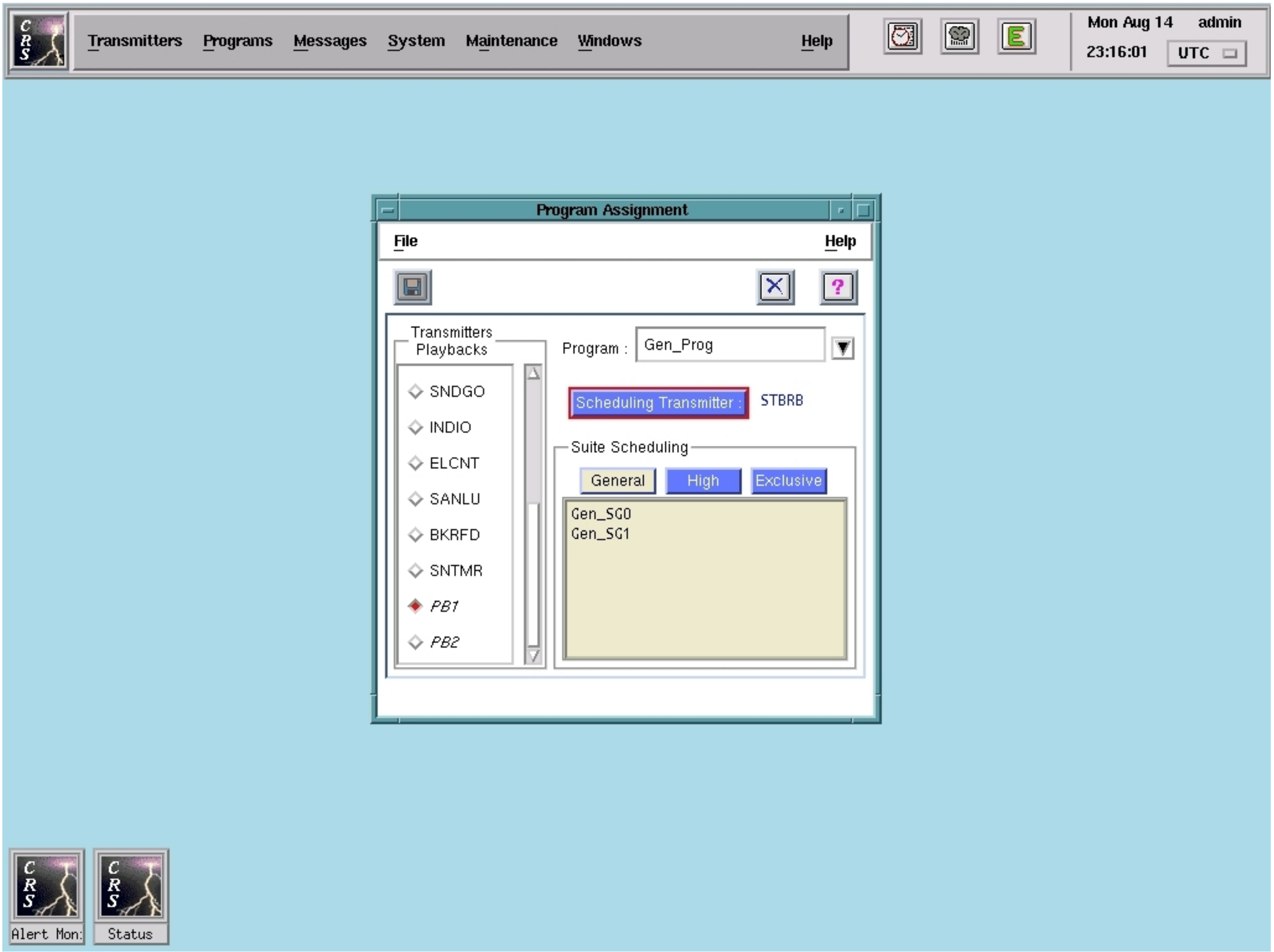
5. Click the APPLY hotkey (in the hotkey menu bar). The selected program will be assigned to the specified


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
23:14:45
UTC
Program Assignment
File
Help
Transmitters
Playbacks
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2
Transmitter List
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
OK
Cancel
Help
Alert Mon:
Status

Program : Gen_Prog

Figure 42. Transmitter List Window

.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 14
admin
23:16:01
UTC
Program Assignment
File
Help
Transmitters
Playbacks
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2
Scheduling Transmitter :
Suite Scheduling
General
High
Exclusive
Alert Mon:
Status

Program : Gen_Prog

Scheduling Transmitter : STBRB

Gen_SG0
Gen_SG1

Figure 43. Program Assignment Window ("Playback" Selected)

playback channel, and you will receive confirmation to this effect in the status display area.

For both options, if you want to monitor the assigned broadcast program, you will need to access the ***Broadcast Cycle*** window and perform the procedures associated with monitoring transmitters/playback channels (see paragraph 3.6.2.1.4).

3.6.2.3. Messages Menu

The **Messages** menu bar component features nine submenu options, i.e., Broadcast Suites, Message Types, Message Groups, Message Type Association, Weather Messages, Weather Message Correction, Message Components, Emergency Override, and Call-to-Action Priority, which allow you to perform specific message-related functions. These options are described below in paragraphs 3.6.2.3.1 through 3.6.2.3.9, respectively.

3.6.2.3.1. Broadcast Suites

This submenu option allows you to create, view, or edit broadcast suites. To perform the option, click the **Messages** menu and then select "Broadcast Suites". The ***Broadcast Suites*** window will then be presented (see Figure 44). To continue, perform "a." or "b." below depending on the desired operation.

a. Create Broadcast Suite. If your intent is to create a broadcast suite, then perform the following steps:

   1. Click the CREATE hotkey (in the hotkey menu bar).

   2. Enter the desired suite name in the Suite Name field. This field will accept up to 40 ASCII characters.

   3. Specify message types or groups for the suite by clicking either the *Add Msg Type* or *Add Group* button, after which either the ***Message Type List*** or ***Message Group List*** window will then be presented (see Figure 45 and Figure 46). Then, assign message types or groups to the suite as desired by highlighting them (in the respective window) and then clicking the *OK* button, whereupon the highlighted entries will be copied to the Message Types/Groups subwindow.

   4. Once you have assigned all desired message types/groups to the suite, use the *Up* and *Down* arrow buttons, as necessary, to move a message type/group up or down (or "prioritize" it) within the list of message types/groups. The *Remove* button is also available to allow you to remove any selected (or highlighted) message type/group.

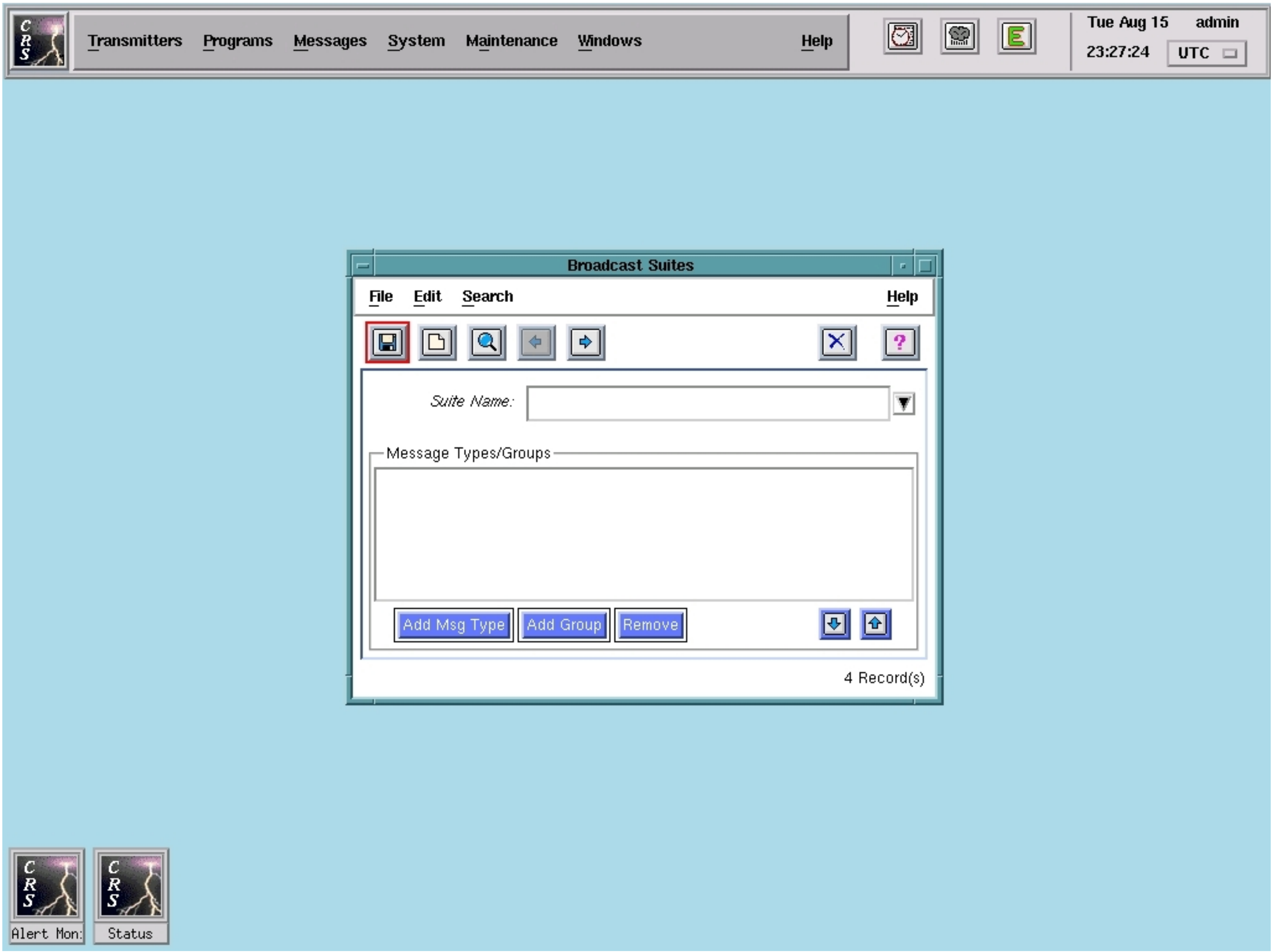
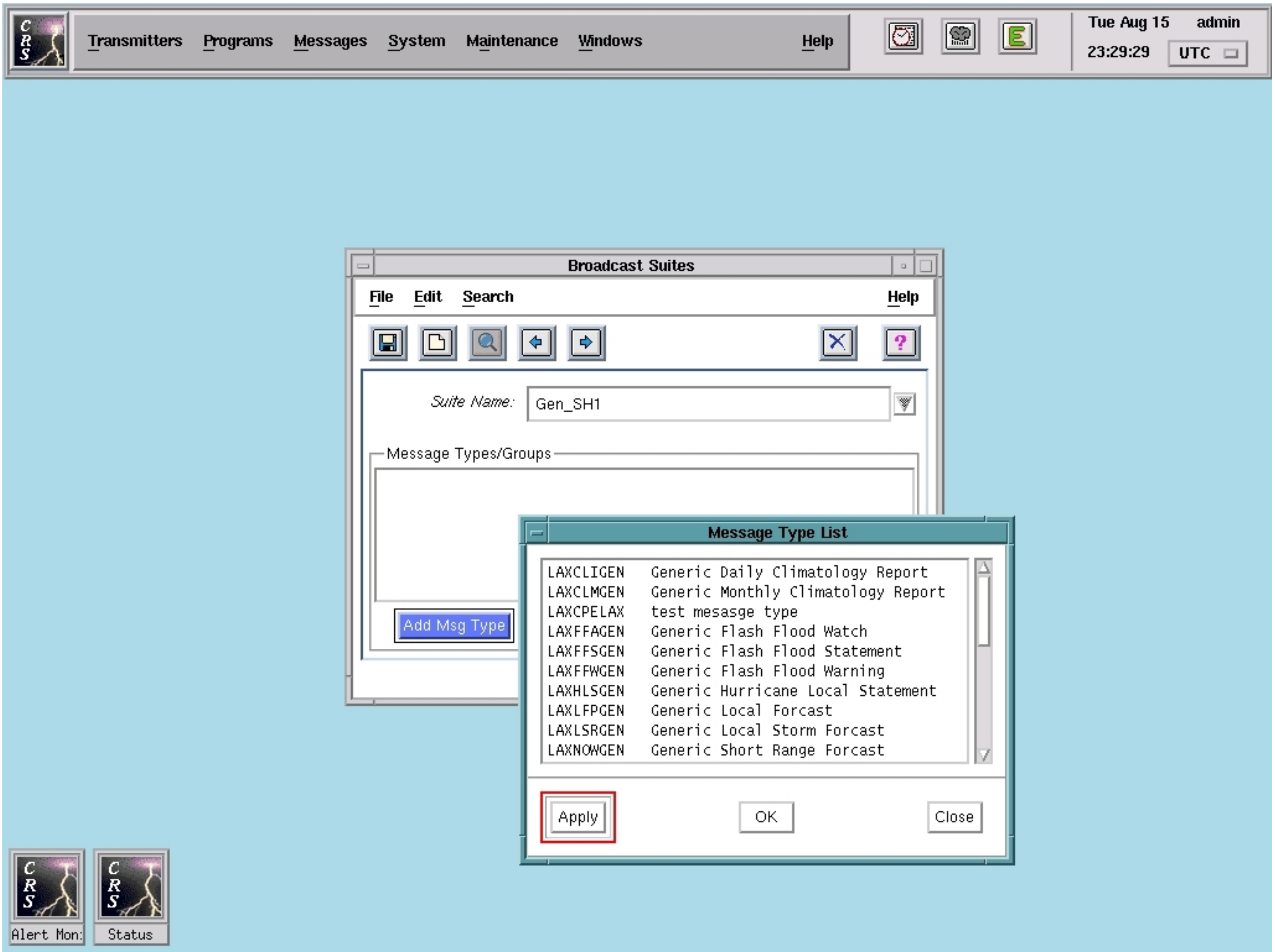

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:27:24
UTC
Broadcast Suites
File
Edit
Search
Help
Suite Name:
Message Types/Groups
Add Msg Type
Add Group
Remove
4 Record(s)
Alert Mon:
Status

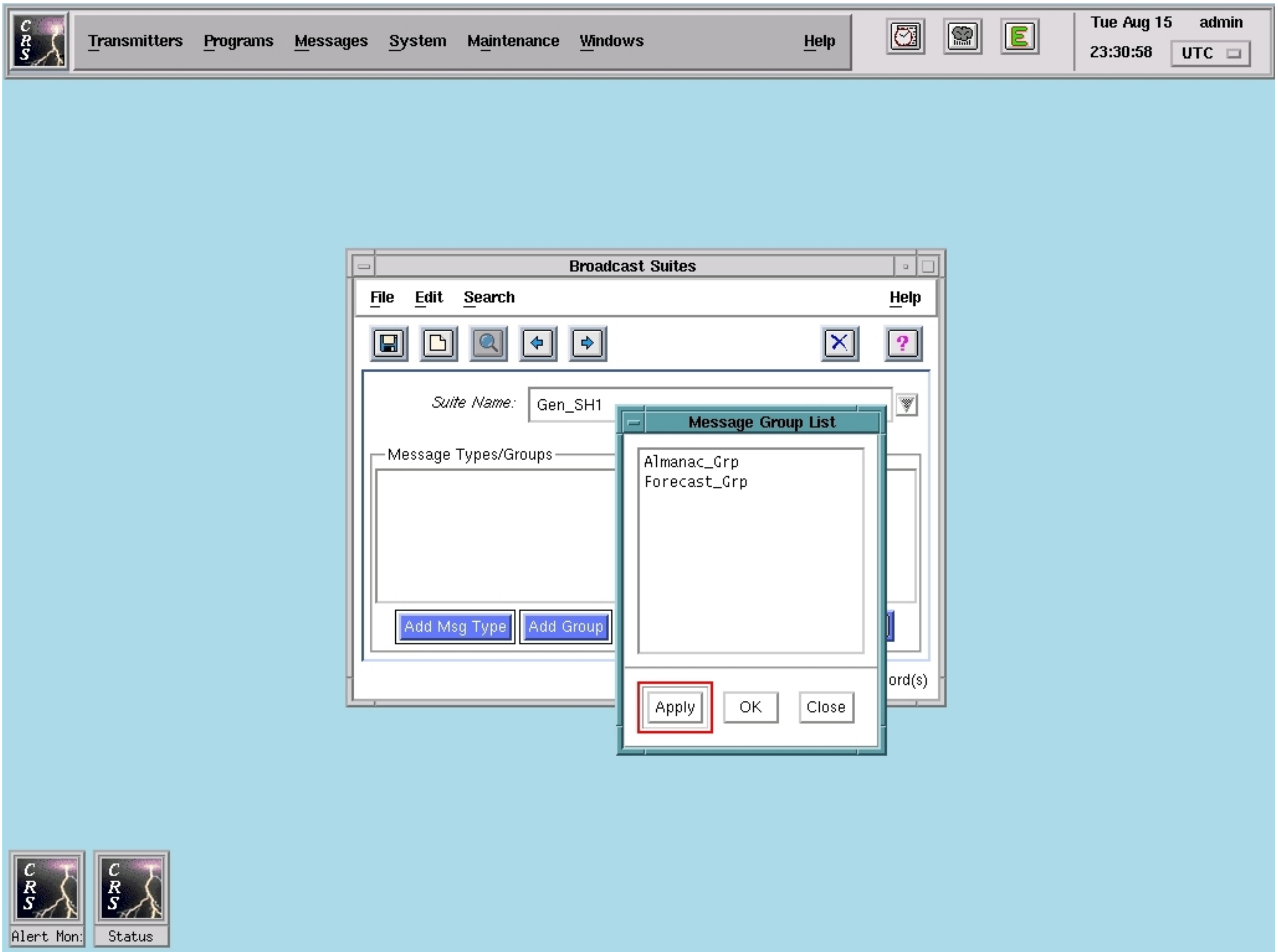
Figure 44. Broadcast Suites Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:29:29
UTC
Broadcast Suites
File
Edit
Search
Help
Message Types/Groups
Add Msg Type
Message Type List
Apply
OK
Close
Alert Mon:
Status

Suite Name: Gen_SH1

LAXCLIGEN	Generic Daily Climatology Report
LAXCLMGEN	Generic Monthly Climatology Report
LAXCPELAX	test mesasge type
LAXFFAGEN	Generic Flash Flood Watch
LAXFFSGEN	Generic Flash Flood Statement
LAXFFWGEN	Generic Flash Flood Warning
LAXHLSGEN	Generic Hurricane Local Statement
LAXLFPGEN	Generic Local Forcast
LAXLSRGEN	Generic Local Storm Forcast
LAXNOWGEN	Generic Short Range Forcast

Figure 45. Message Type List Window



Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:30:58
UTC
Broadcast Suites
File
Edit
Search
Help
Suite Name:
Gen_SH1
Message Types/Groups
Add Msg Type
Add Group
ord(s)
Message Group List
Almanac_Grp
Forecast_Grp
Apply
OK
Close
Alert Mon:
Status

Figure 46. Message Group List Window

5. Click the SAVE hotkey (in the hotkey menu bar). The suite will subsequently be saved, and you will receive confirmation to this effect in the status display area.

b. View/Edit Broadcast Suite. If your intent is to view or edit a broadcast suite, then perform the following steps:

1. Click the list button to the right of the Suite Name field and select the desired suite from the pick-list by double-clicking it. The suite will be transferred to the Suite Name field, and the Message Types/Groups subwindow will update to reflect message types/groups previously specified for the suite.

2. View/edit the selected suite. If editing the suite, follow Steps 3 through 5 described under "a." above, since the procedures for editing suites are essentially the same as those for creating suites.

3.6.2.3.2. Message Types

This submenu option allows you to create, view, or edit message types. To perform the option, click the **Messages** menu and then select "Message Types". The ***Message Types*** window will then be presented (see Figure 47). To continue, perform "a." or "b." below depending on the desired operation.

a. Create Message Type. If your intent is to create a message type, then perform the following steps:

  1. Click the CREATE hotkey (in the hotkey menu bar).

  2. Enter the desired message type in the Message Type field. This field will accept up to 9 ASCII characters.

  3. Enter the desired message title in the Title field. This field will accept up to 40 ASCII characters.

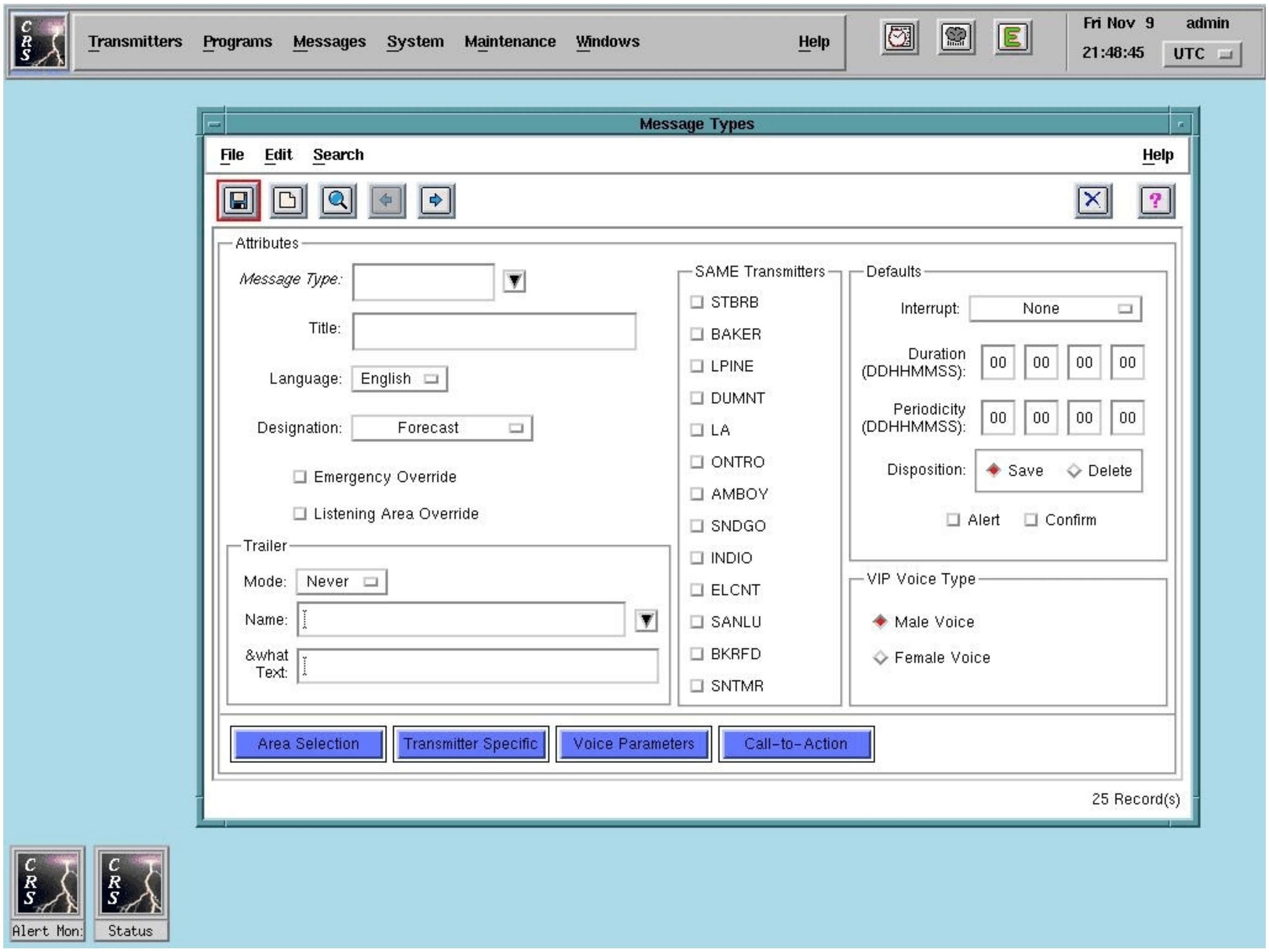
  4. Specify the desired language (i.e., English or Spanish) by clicking the option button to the right of the field and selecting the language from the option list. English is the default for the field.

  5. Specify the desired designation (i.e., Station ID, Forecast, Observation, Outlook, Watch, Warning, Advisory, Time Announcement, or Other) by clicking the option button to the right of the field and selecting the designation from the option list. Station ID is the default for the field.

  6. Set, if desired, the emergency override flag for the message type by clicking the toggle button to the left of the Emergency Override field. By setting this flag, the message type will be available as a possible selection during an emergency override broadcast session (see paragraph 3.6.2.3.8).

  7. Set, if desired, the listening area override flag for the message type by clicking the toggle button to the left of the Listening Area Override field. By setting this flag, any areas defined via the *Area Selection* button (see Step 11 below) will override those areas specified for an incoming AFOS/AWIPS message.

  8. Specify, if desired, a Trailer for the message type by clicking the list button to the right of the Name field and selecting the desired Trailer from the pick list. (*A Trailer is a "generalized" Spanish version*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
admin
21:48:45
UTC
Message Types
File
Edit
Search
Help
Attributes
SAME Transmitters
Defaults
Trailer
VIP Voice Type
Area Selection
Transmitter Specific
Voice Parameters
Call-to-Action
Alert Mon:
Status

Message Type:
Title:
Language: English
Designation: Forecast
☐ Emergency Override
☐ Listening Area Override

Trailer
Mode: Never
Name:
&what Text:

SAME Transmitters
☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
☐ SNDGO
☐ INDIO
☐ ELCNT
☐ SANLU
☐ BKRFD
☐ SNTMR

Defaults
Interrupt: None
Duration (DDHHMMSS): 00 00 00 00
Periodicity (DDHHMMSS): 00 00 00 00
Disposition: ● Save ○ Delete
☐ Alert ☐ Confirm

VIP Voice Type
● Male Voice
○ Female Voice

25 Record(s)

Figure 47. Message Types Window

of a message and is broadcast immediately after the English version of the message is broadcast.) *It is created via the Message Components submenu or via the XCRS_SITE Utility--see paragraph 3.6.2.3.7 or 3.7.1.*) If desired, change or specify the mode (i.e., Never, 1 for once, or A for always) for the Trailer by clicking the option button to the right of the Mode field and selecting the mode from the option list. Also, if desired, specify additional Trailer text in the &what field. This text will be substituted for the &what variable in the specified Trailer when it is broadcast.

Please **note** that a Trailer will only be broadcast if the primary message component with which it is associated is in the English language, has WRSAME tones set, and is broadcasting on a Spanish-capable transmitter.

9. Select desired SAME transmitters by clicking the toggle button(s) to the left of the transmitter(s). (Specifying SAME transmitters for a particular message type means that SAME tones will be activated on these transmitters whenever the message type is broadcast.)

10. Specify the desired VIP Voice Type (i.e., Male Voice or Female Voice) by clicking the toggle button to the left of the desired field value.

11. Specify the desired defaults for the message type, including:

    - Interrupt - indicates whether the message type may interrupt another message currently being broadcast. To specify, click the option button to the right of the Interrupt field and pick the desired option (i.e., None, Interrupt, or Interrupt with Announcement) from the option list. None is the default for the field.

    - Duration - indicates the length of time to be added to the effective time in computing a default expiration time for the message type. To specify, enter the value in the form:

      DDHHMMSS

      where "DD" indicates the number of days (i.e., 00 to 99), "HH" indicates the number of hours (i.e., 00 to 23), "MM" indicates the number of minutes (i.e., 00 to 59), and "SS" indicates the number of seconds (i.e., 00 to 59).

- Periodicity - indicates the interval to be used to calculate the next time to broadcast the message type. To specify, enter the value in the form:

  DDHHMMSS

  where "DD" indicates the number of days (i.e., 00 to 99), "HH" indicates the number of hours (i.e., 00 to 23), "MM" indicates the number of minutes (i.e., 00 to 59), and "SS" indicates the number of seconds (i.e., 00 to 59). Please **note** that specifying periodicity automatically identifies this as a "time-inserted" message type.

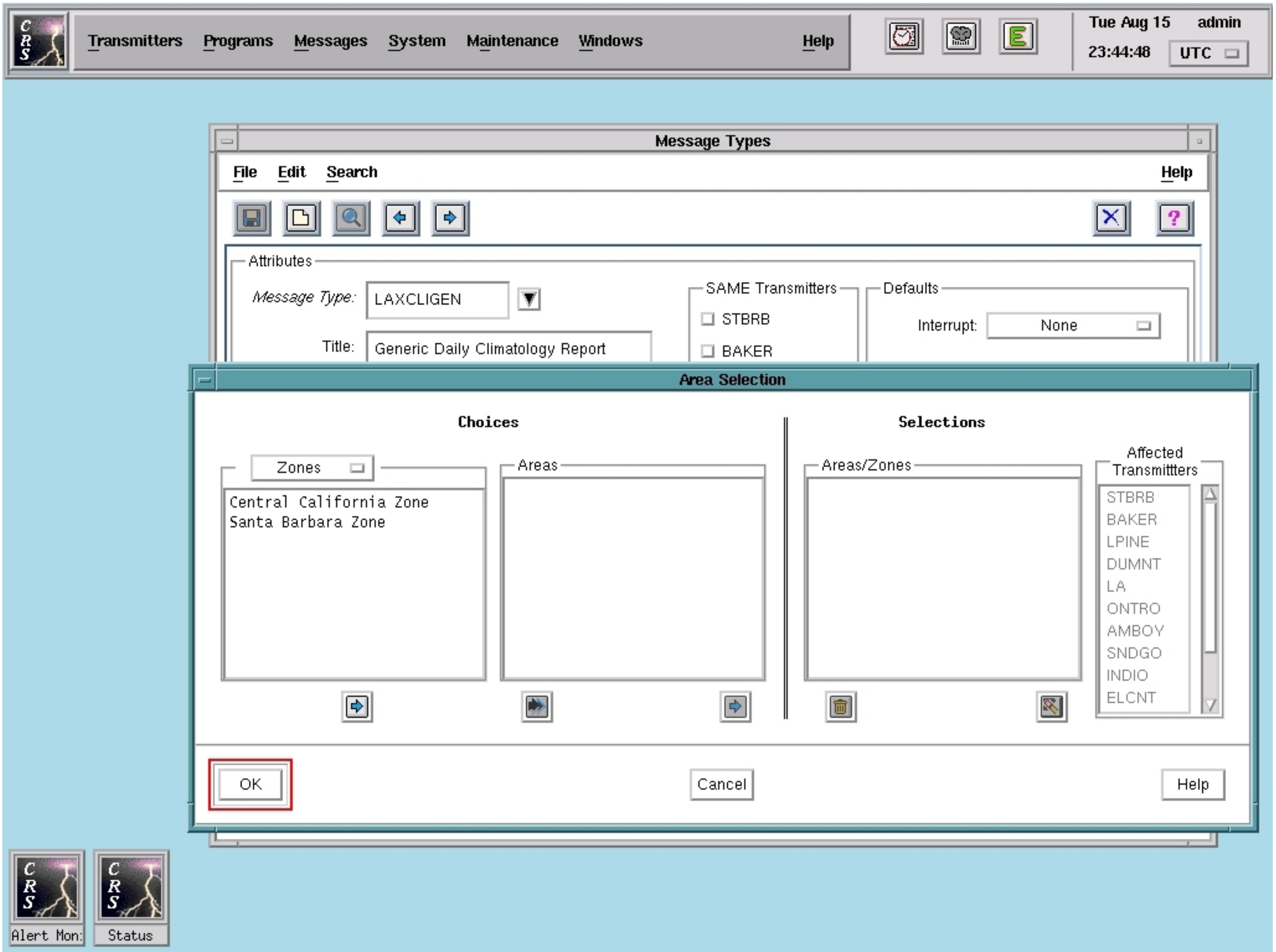
- Disposition - indicates whether the message type is to be saved or deleted following its final broadcast. To specify, click the radio button to the left of the desired field value (i.e., Save or Delete).

- Alert Flag - indicates whether an alert tone will precede the first broadcast of the message type. To select, click the toggle button to the left of the Alert field.

- Confirm Flag - indicates whether confirmation of the message should be sent to the operator following the broadcast of the message type. To select, click the toggle button to the left of the Confirm field.

12. Specify desired listening areas for the message type by first clicking the *Area Selection* button, after which the ***Area Selection*** window will then be presented (see Figure 48), displaying four subwindows. The object here is to use the first two subwindows to access, display, and then copy desired listening areas into the third (or Areas/Zones) subwindow. To continue, perform the following substeps:

    - Select the desired listening area type (i.e., Zones, Transmitters, or All Areas) by clicking the option button in the top-left (directly above the first subwindow) and then picking the option from the list. (Zone is the default for the field.) The first subwindow will update to reflect all listening areas for the type selected. If you selected Zones or Transmitters, the subwindow will display all the zones defined in or all the transmitters configured for the system, respectively. If you selected All Areas, the subwindow will remain blank, and the Areas (or second) subwindow will update to reflect all areas (i.e., counties and cities) defined in the system.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Message Types
File
Edit
Search
Help
Attributes
SAME Transmitters
Defaults
Area Selection
Choices
Selections
Zones
Areas
Areas/Zones
Affected Transmittters
OK
Cancel
Help
Alert Mon:
Status

Tue Aug 15 23:44:48 admin UTC

Message Type: LAXCLIGEN

Title: Generic Daily Climatology Report

☐ STBRB
☐ BAKER

Interrupt: None

Zones:
Central California Zone
Santa Barbara Zone

Affected Transmittters:
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT

Figure 48. Area Selection Window

- Click the desired listening area type in the first subwindow (i.e., if you selected Zones or Transmitters). The Areas subwindow (or second subwindow) will update to reflect those areas previously specified for the listening area type via the Listening Area submenu (see paragraph 3.6.2.1.2).

- Transfer desired areas (from the Areas subwindow) into the Areas/Zones (or third) subwindow by highlighting them and then clicking the single right arrow button. The highlighted entries will then be copied into the Areas/Zones subwindow. As an alternative, copy all of the areas (from the Areas subwindow) into the Areas/Zones subwindow by clicking the double right arrow button. As another alternative, if you want to copy an entire Zone into the Areas/Zones subwindow, highlight the zone in the first subwindow and then click the single right arrow button (directly under the first subwindow).

  Upon transferring areas into the Areas/Zones subwindow, the Affected Transmitters (or fourth) subwindow will update to reflect those transmitters assigned to the transferred areas (again, as defined via the Listening Areas submenu). Affected transmitters will be shaded dark, whereas unaffected transmitters will be shaded light.

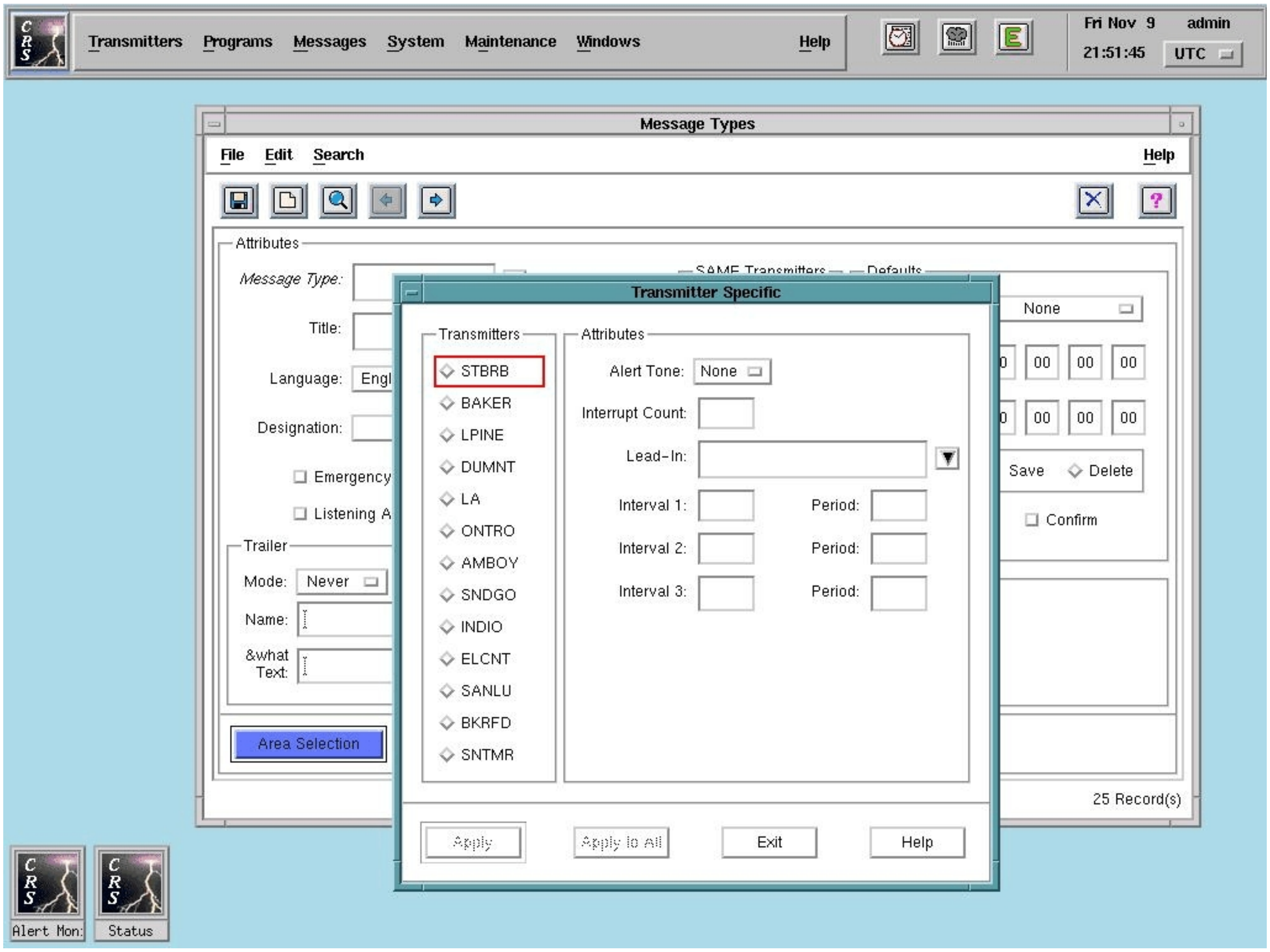
- Click the *OK* button and you will be returned to the ***Message Types*** window.

13. Specify desired transmitter specific parameters for the message type by first clicking the *Transmitter Specific* button, after which the ***Transmitter Specific*** window will then be presented (see Figure 49). Then, perform the following substeps:

    - Select the desired transmitter by clicking the radio button to the left of the transmitter.

    - Specify desired attributes for the transmitter, including:

      - Alert Tone - indicates the alert tone to be broadcast prior to the message type's first broadcast. To specify, click the option button to the right of the Alert Tone field and select the desired alert tone (i.e., None or 1) from the option list.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
admin
21:51:45
UTC
Message Types
File
Edit
Search
Help
Attributes
Message Type:
Title:
Designation:
Emergency
Listening A
Trailer
Name:
&what Text:
Area Selection
SAME Transmitters
Defaults
Save
Delete
Confirm
25 Record(s)
Transmitter Specific
Transmitters
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
Attributes
Interrupt Count:
Lead-In:
Interval 1:
Interval 2:
Interval 3:
Period:
Period:
Period:
Apply
Apply to All
Exit
Help
Alert Mon:
Status

Language: Engl

Mode: Never

Alert Tone: None

Figure 49. Transmitter Specific Window

- Interrupt Count - indicates the number of times the message type will be output before it can be interrupted by any other message type. To specify, enter the desired interrupt count (i.e., 0 to 255) via the keyboard.

- Lead-in - indicates the lead-in sentence to precede the broadcast of the message type. To specify, click the list button to the right of the Lead-in field and select the desired sentence from the pick-list. (Please **note** that Lead-in sentences are actually created via the Message Components submenu--see paragraph 3.6.2.3.7.)

- Recurrence Parameters (i.e., Interval 1, Period; Interval 2, Period; and Interval 3, Period) - indicates an optional set of broadcast recurrence parameters that supersedes the Message Type Periodicity value specified in the ***Message Type*** window. For example, a message type with broadcast recurrence pairs (i.e., Interval, Periodicity) of 10,2 and 20,5 (in the Interval 1, Period/Interval 2, Period fields) would mean that upon reaching the effective broadcast time, the message would be broadcast every 2 minutes for 10 minutes and then every 5 minutes for 20 minutes. After this period, the message type would default back to any previously defined Message Type Periodicity value.

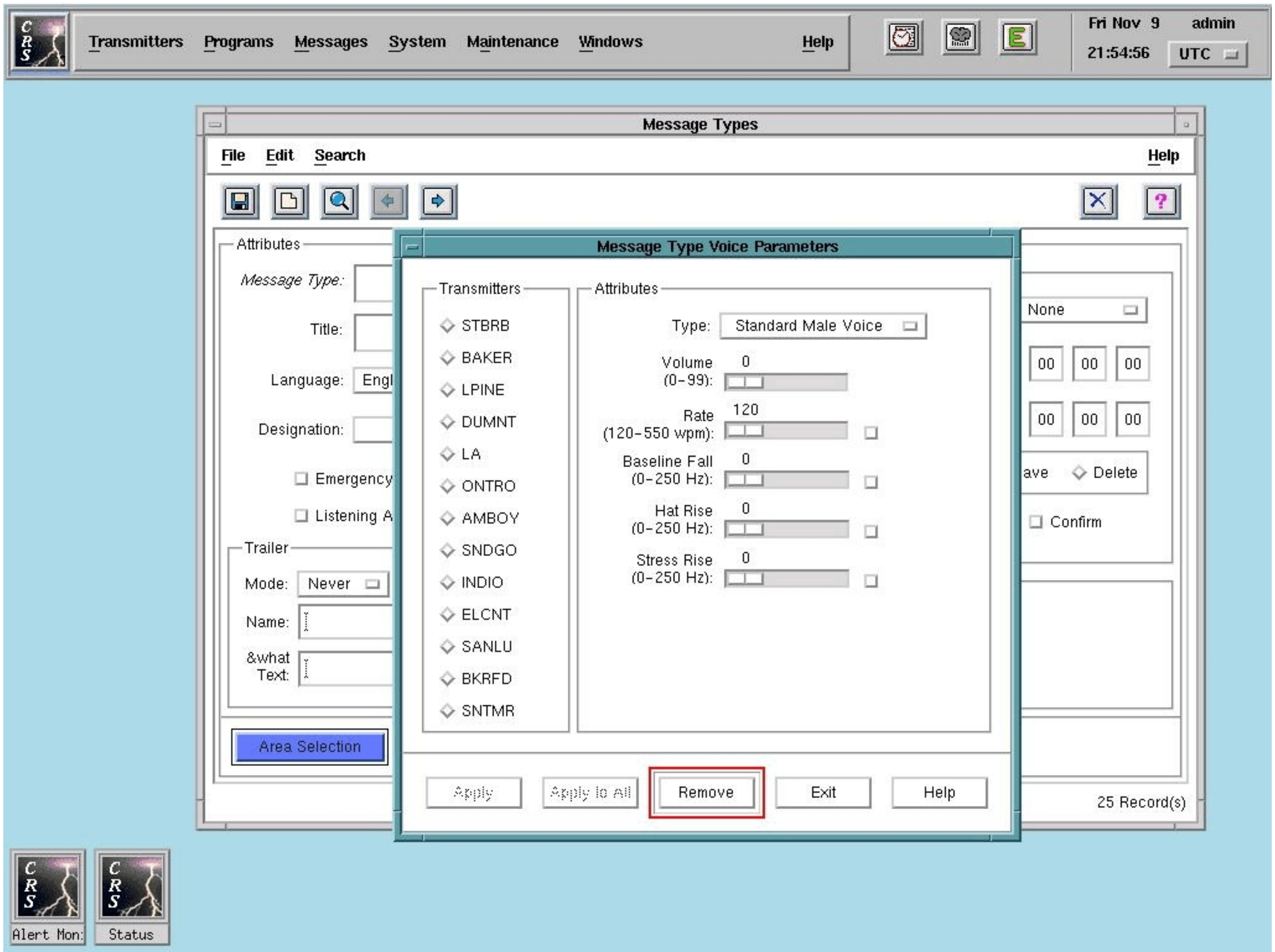
- Click the *Apply* button to save the parameters for the specified transmitter. Then, repeat the above substeps for any other transmitters you need to set up, or click the *Apply to All* button if you want to apply the current setup data to all configured transmitters.

14. Specify desired voice parameters for the message type by first clicking the *Voice Parameters* button, after which the ***Message Type Voice Parameters*** window will then be presented (see Figure 50). Then, perform the following substeps:

    - Select the desired transmitter by clicking the radio button to the left of the transmitter.

    - Specify desired voice parameters for the transmitter, including:

    - Type - indicates the DecTalk voice type (i.e., Standard Male Voice, Standard Female Voice, Deep Male Voice, Older Male Voice, Child Voice, Deep Female Voice, Light Female Voice, Breathy Male Voice, Whispery Female Voice, and Breathy Female Voice). To specify, click



Type: Standard Male Voice

Volume (0-99): 0

Rate (120-550 wpm): 120

Baseline Fall (0-250 Hz): 0

Hat Rise (0-250 Hz): 0

Stress Rise (0-250 Hz): 0

Mode: Never

25 Record(s)

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
21:54:56
admin
UTC
Message Types
File
Edit
Search
Help
Attributes
Message Type:
Title:
Language: Engl
Designation:
☐ Emergency
☐ Listening A
Trailer
Mode:
Name:
&what Text:
Area Selection
Message Type Voice Parameters
Transmitters
◇ STBRB
◇ BAKER
◇ LPINE
◇ DUMNT
◇ LA
◇ ONTRO
◇ AMBOY
◇ SNDGO
◇ INDIO
◇ ELCNT
◇ SANLU
◇ BKRFD
◇ SNTMR
Attributes
☐
☐
☐
☐
Apply
Apply to All
Remove
Exit
Help
None
00
00
00
00
00
00
ave
◇ Delete
☐ Confirm
Alert Mon:
Status

Figure 50. Message Type Voice Parameters Window

the option button to the right of the Type field and select the desired type from the option list.

- Volume - indicates the volume (in decibels) for the selected voice type. To specify, use the slider to select the desired value (i.e., 0 to 99 dB).
- Rate - indicates the rate (in words per minute, wpm) of speech for the selected voice type. To specify, use the slider to select the desired value (i.e., 120 to 550 wpm).
- Baseline Fall - determines one aspect of the dynamic frequency of a contour of a sentence. To specify, use the slider to select the desired value (i.e., 0 to 250 Hz).
- Hat Rise - determines, along with stress rise, another aspect of the dynamic frequency of a contour of a sentence. To specify, use the slider to select the desired value (i.e., 0 to 250 Hz).
- Stress Rise - indicates the nominal height (in Hz) of a local pitch rise and fall on each stressed syllable for the selected voice type. It is added to any hat rise or fall that may also be defined. To specify, use the slider to select the desired value (i.e., 0 to 250 Hz).

- Click the *Apply* button to save the voice parameters for the specified transmitter. Then, repeat the above substeps for any other transmitters you need to set up, or click the *Apply to All* button if you want to apply the current setup data to all configured transmitters. The *Remove* button is also available to allow you to remove or delete the voice parameters for a given message type.

15. Specify desired Call-to-Action (CTA) lists and messages by first clicking the *Call-to-Action* button, after which the ***Message Type Call-to-Action*** window will then be presented (see Figure 51). (*A call-to-action simply defined is a short set of instructions*

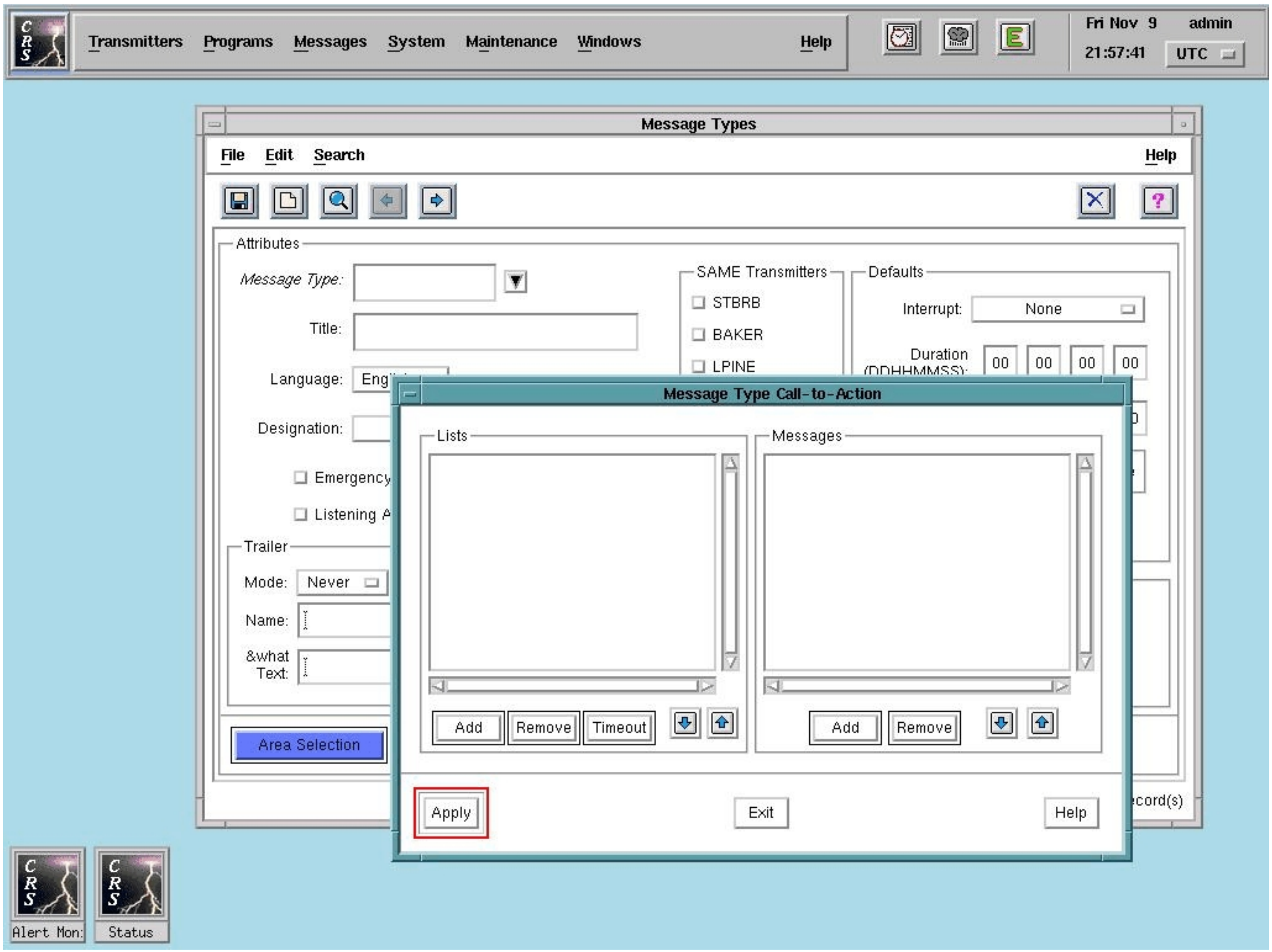

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
admin
21:57:41
UTC
Message Types
File
Edit
Search
Help
Attributes
Message Type:
Title:
Language:
Designation:
Emergency
Listening A
Trailer
Mode:
Never
Name:
&what
Text:
Area Selection
SAME Transmitters
STBRB
BAKER
LPINE
Defaults
Interrupt:
None
Duration
(DDHHMMSS):
00
00
00
00
Message Type Call-to-Action
Lists
Messages
Add
Remove
Timeout
Add
Remove
Apply
Exit
Help
Alert Mon:
Status

Figure 51. Message Type Call-to-Action Window

that is broadcast immediately following a weather message to advise the public on what actions to take to remain safe in the current weather conditions.) To continue, perform the following substeps:

- Click the *Add* button under the Lists subwindow. The ***Call-to-Action List Timeout*** window will then be presented (see Figure 52). To continue, use the slider to select the desired timeout value (in minutes) and then click the *OK* button. A CTA list will automatically be created and its name will appear in the Lists subwindow (of the ***Message Type Call-to-Action*** window) along with the specified timeout value.

- Assign (up to 10) CTA messages to the CTA list by first highlighting the CTA list and then clicking the *Add* button under the Messages subwindow. The ***Call-to-Action Message List*** window will then be presented (see Figure 53), displaying any previously created CTA messages. (Please **note** that CTA message content is actually created via the Message Components submenu--see paragraph 3.6.2.3.7.) To continue, merely highlight the desired messages and then click the *OK* button. The highlighted messages will then be copied into the Messages subwindow (in the ***Message Type Call-to-Action*** window).

- Use the *Up* and *Down* arrow buttons, as required, to reposition (or "prioritize") any CTA messages in the Messages subwindow, with the top-most list item having the highest priority. (Each click of the arrow button will move the highlighted message one position within the list.) The *Remove* button is also available to allow you to remove any highlighted CTA message(s) from the list.

- When finished defining the CTA list and associated CTA messages, click the *Apply* button. The CTA data will then be saved.

- Define any other desired CTA lists (up to a maximum of 10) for the message type by repeating the above substeps and then click the *Exit* button; otherwise, click the *Exit* button directly. If defining additional CTA lists, use the *Up* and *Down* arrow buttons, as required, to reposition CTA lists within the CTA Lists subwindow. The *Remove* button is also available to allow you to remove any highlighted CTA list(s) from the list.

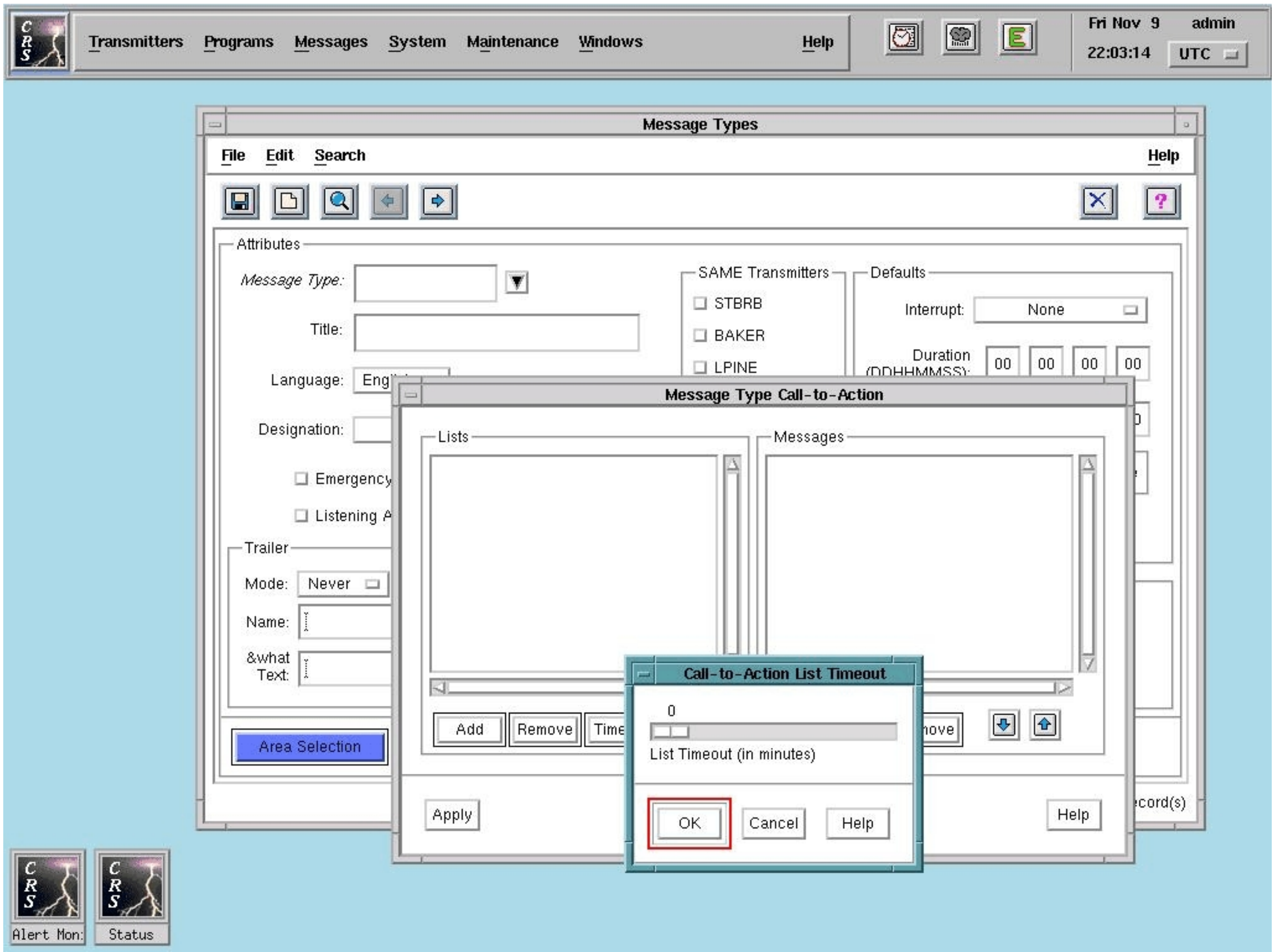
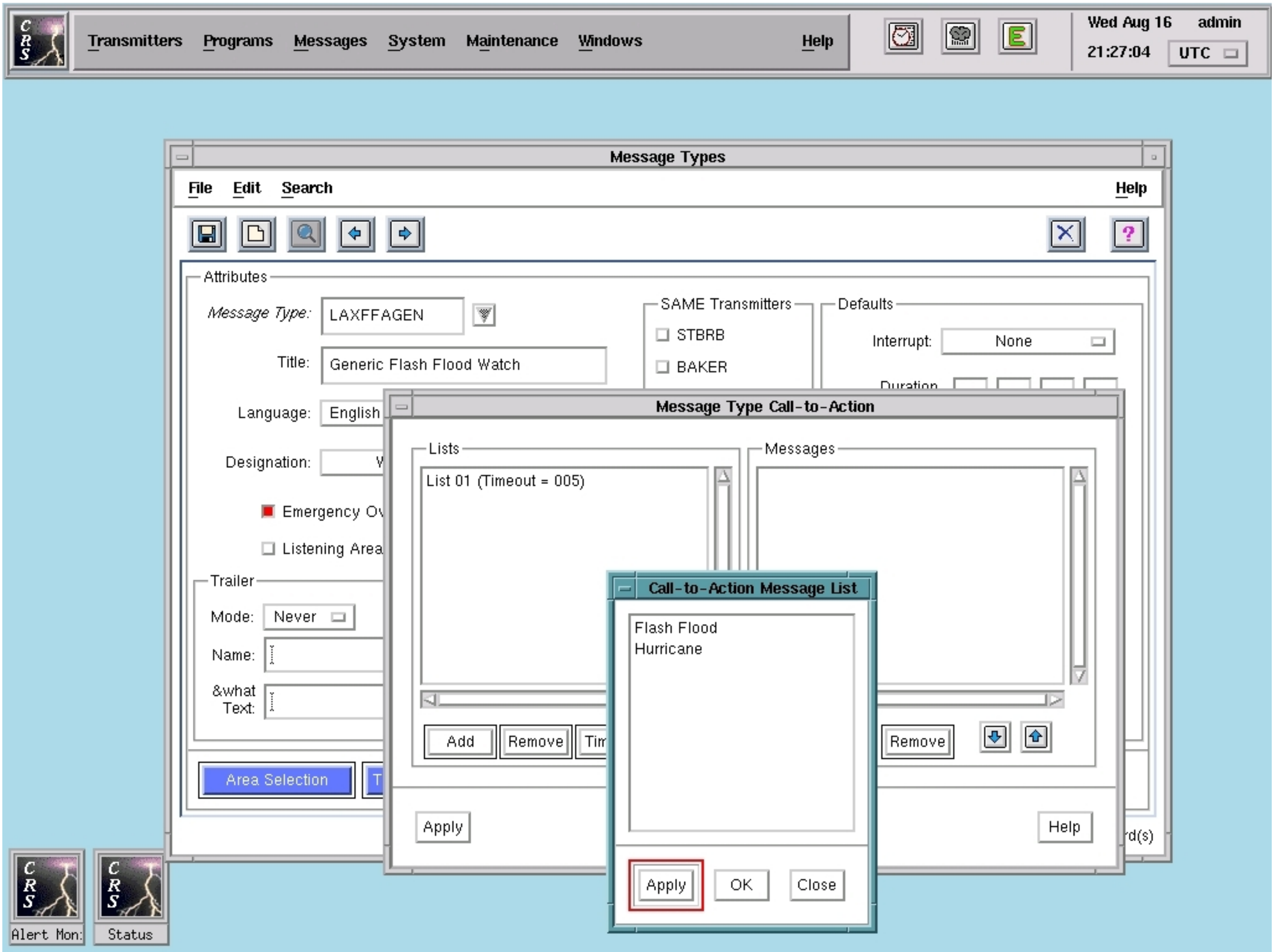

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
admin
22:03:14
UTC
Message Types
File
Edit
Search
Help
Attributes
Message Type:
Title:
Language: Engl
Designation:
Emergency
Listening A
Trailer
Mode: Never
Name:
&what Text:
Area Selection
SAME Transmitters
STBRB
BAKER
LPINE
Defaults
Interrupt: None
Duration (DDHHMMSS): 00 00 00 00
Message Type Call-to-Action
Lists
Messages
Add
Remove
Time
nove
Apply
Help
cord(s)
Call-to-Action List Timeout
0
List Timeout (in minutes)
OK
Cancel
Help
Alert Mon:
Status

Figure 52. Call-to-Action List Timeout Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Message Types
File
Edit
Search
Help
Attributes
SAME Transmitters
Defaults
Duration
Message Type Call-to-Action
Lists
Messages
Add
Remove
Tim
Remove
Apply
Help
Call-to-Action Message List
Apply
OK
Close
Area Selection
T
rd(s)
Alert Mon:
Status

Wed Aug 16 admin
21:27:04 UTC

Message Type: LAXFFAGEN

Title: Generic Flash Flood Watch

Language: English

Designation: W

■ Emergency Ov

☐ Listening Area

☐ STBRB

☐ BAKER

Interrupt: None

Trailer

Mode: Never

Name:

&what Text:

List 01 (Timeout = 005)

Flash Flood
Hurricane

Figure 53. Call-to-Action Message List Window

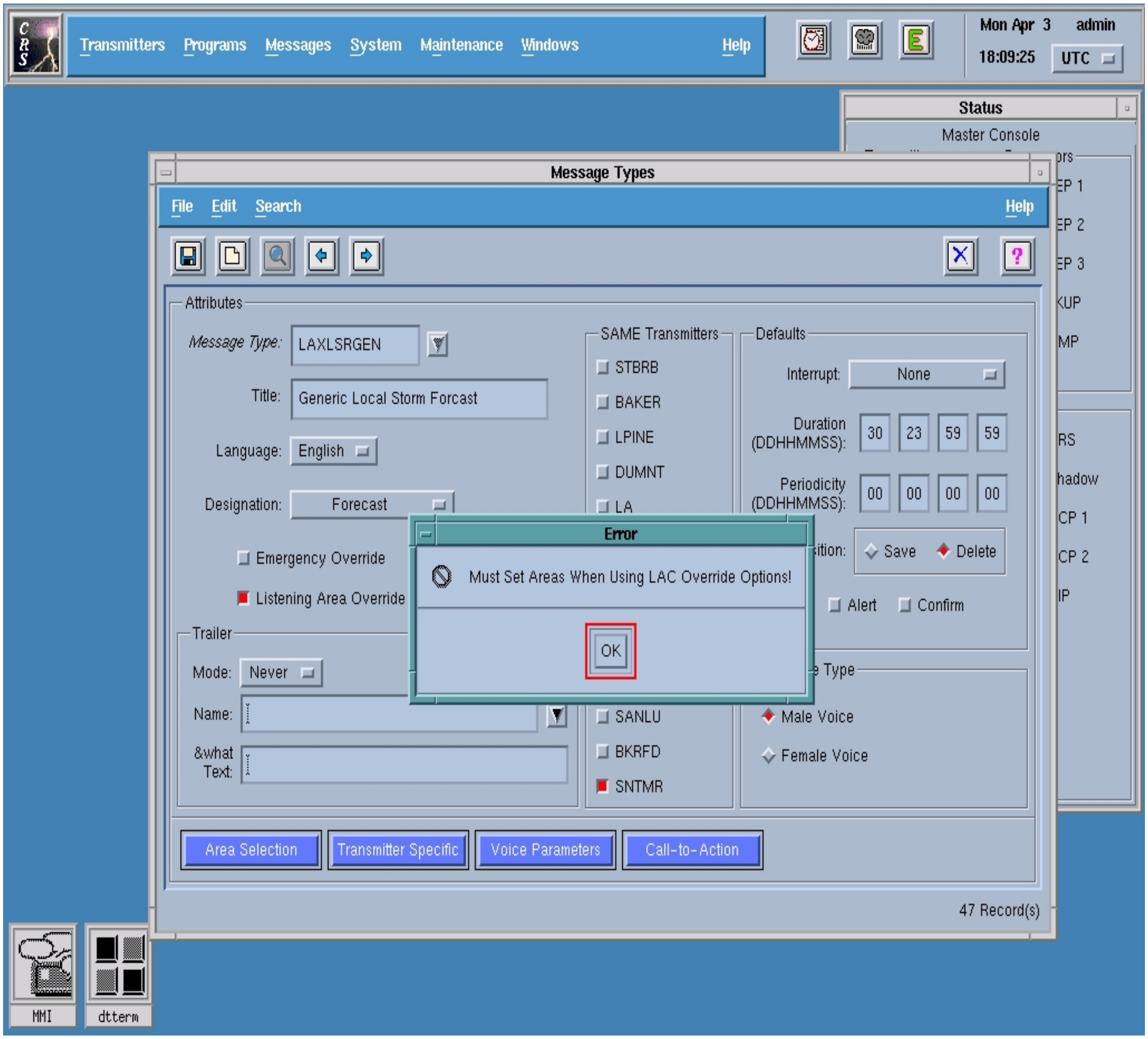
16. Click the SAVE hotkey (in the hotkey menu bar). The message type data will subsequently be saved, and you will receive confirmation to this effect in the status display area.

    Note: *If the Listening Area Override option is selected but the Listening Areas are undefined, the operator should see the* ***warning dialog,*** *as shown (see* Figure 54). *The software won't allow the SAVE operation to occur until the operator has defined at least on default Listening Area*.

b. View/Edit Message Type. If your intent is to view or edit a message type, then perform the following steps:

   1. Click the list button to the right of the Message Type field and select the desired message type from the pick-list by double-clicking it. The message type will be transferred to the Message Type field, and the message type parameter fields will then update to reflect those parameters previously defined for the message type.

   2. View/edit the selected message type. If editing the message type, follow Steps 3 through 16 described under "a." above, since the procedures for editing message types are essentially the same as those for creating message types.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
18:09:25
UTC
Status
Master Console
Message Types
File
Edit
Search
Help
Attributes
SAME Transmitters
Defaults
Trailer
Area Selection
Transmitter Specific
Voice Parameters
Call-to-Action
OK
MMI
dtterm

Message Type: LAXLSRGEN

Title: Generic Local Storm Forcast

Language: English

Designation: Forecast

☐ Emergency Override

☒ Listening Area Override

Trailer Mode: Never

Name:

&what Text:

SAME Transmitters: ☐ STBRB ☐ BAKER ☐ LPINE ☐ DUMNT ☐ LA ☐ SANLU ☐ BKRFD ☒ SNTMR

Interrupt: None

Duration (DDHHMMSS): 30 23 59 59

Periodicity (DDHHMMSS): 00 00 00 00

◇ Save ◆ Delete

☐ Alert ☐ Confirm

◆ Male Voice ◇ Female Voice

Error

Must Set Areas When Using LAC Override Options!

47 Record(s)

Figure 54. Warning Message Window - Listening Area(s) not defined

3.6.2.3.3. Message Groups

This submenu option allows you to create, view, or edit message groups. To perform the option, click the **Messages** menu and then select "Message Groups". The ***Message Groups*** window will then be presented (see Figure 55). To continue, perform "a." or "b." below depending on the desired operation.

a. Create Message Group. If your intent is to create a message group, then perform the following steps:

1. Click the CREATE hotkey (in the hotkey menu bar).

2. Enter the desired group name in the Group Name field. This field will accept up to 40 ASCII characters.

3. Select desired SAME transmitters by clicking the toggle button(s) to the left of the transmitter(s). (Specifying SAME transmitters for a particular message group means that SAME tones will be activated on these transmitters whenever the message group is broadcast.)

4. Specify message types for the group by first clicking the *Add* button, after which the ***Message Type List*** window will then be presented (see Figure 56) Then, assign message types to the group by highlighting them and then clicking the *OK* button, whereupon the highlighted entries will be copied to the Message Types subwindow.

5. Once you have assigned all desired message types to the group, use the *Up* and *Down* arrow buttons, as necessary, to move a message type up or down (or "prioritize" it) within the list of message types. The *Remove* button is also available to allow you to remove any selected (or highlighted) message type.

6. Click the SAVE hotkey (in the hotkey menu bar). The message group will subsequently be saved, and you will receive confirmation to this effect in the status display area.

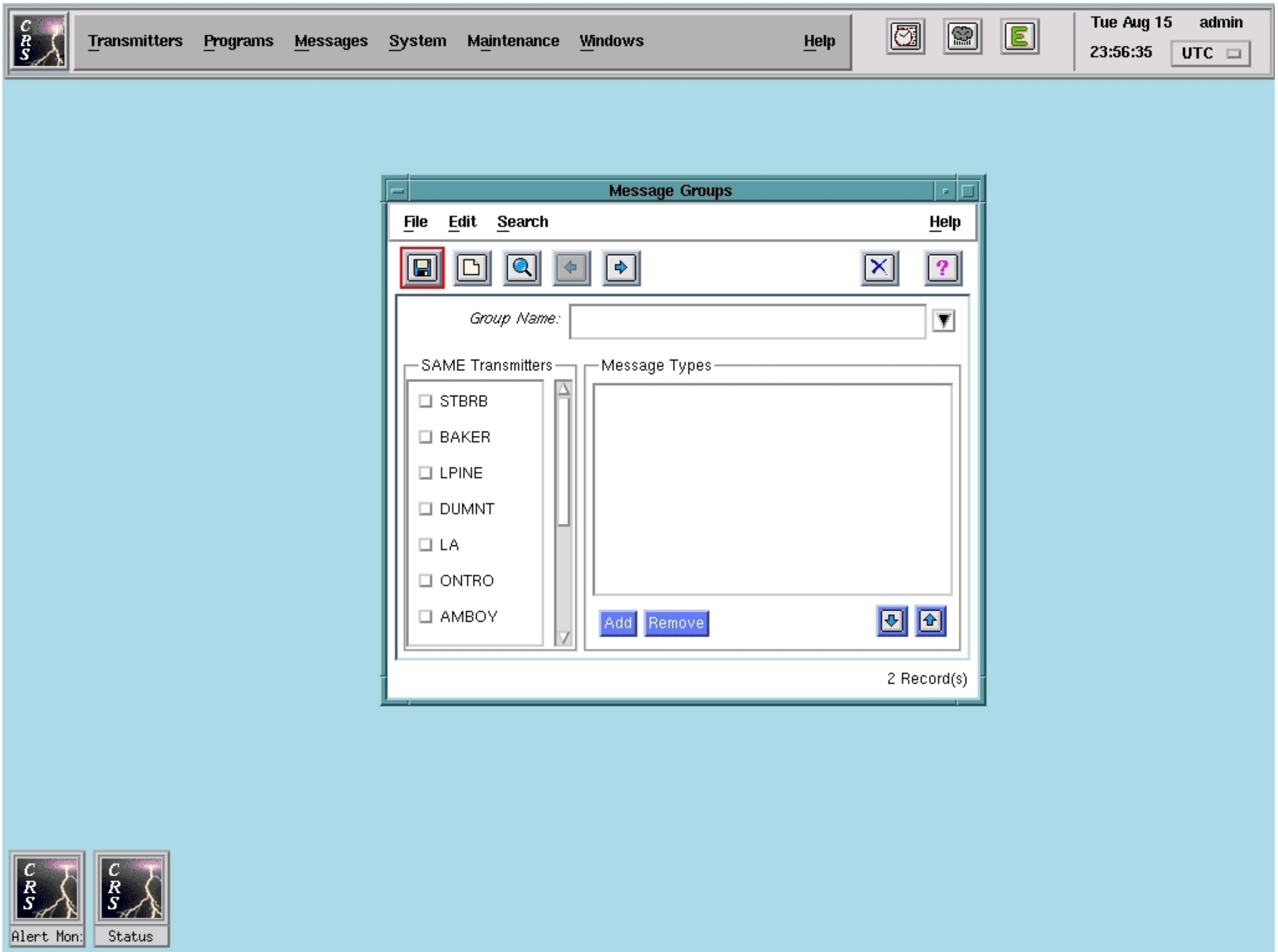
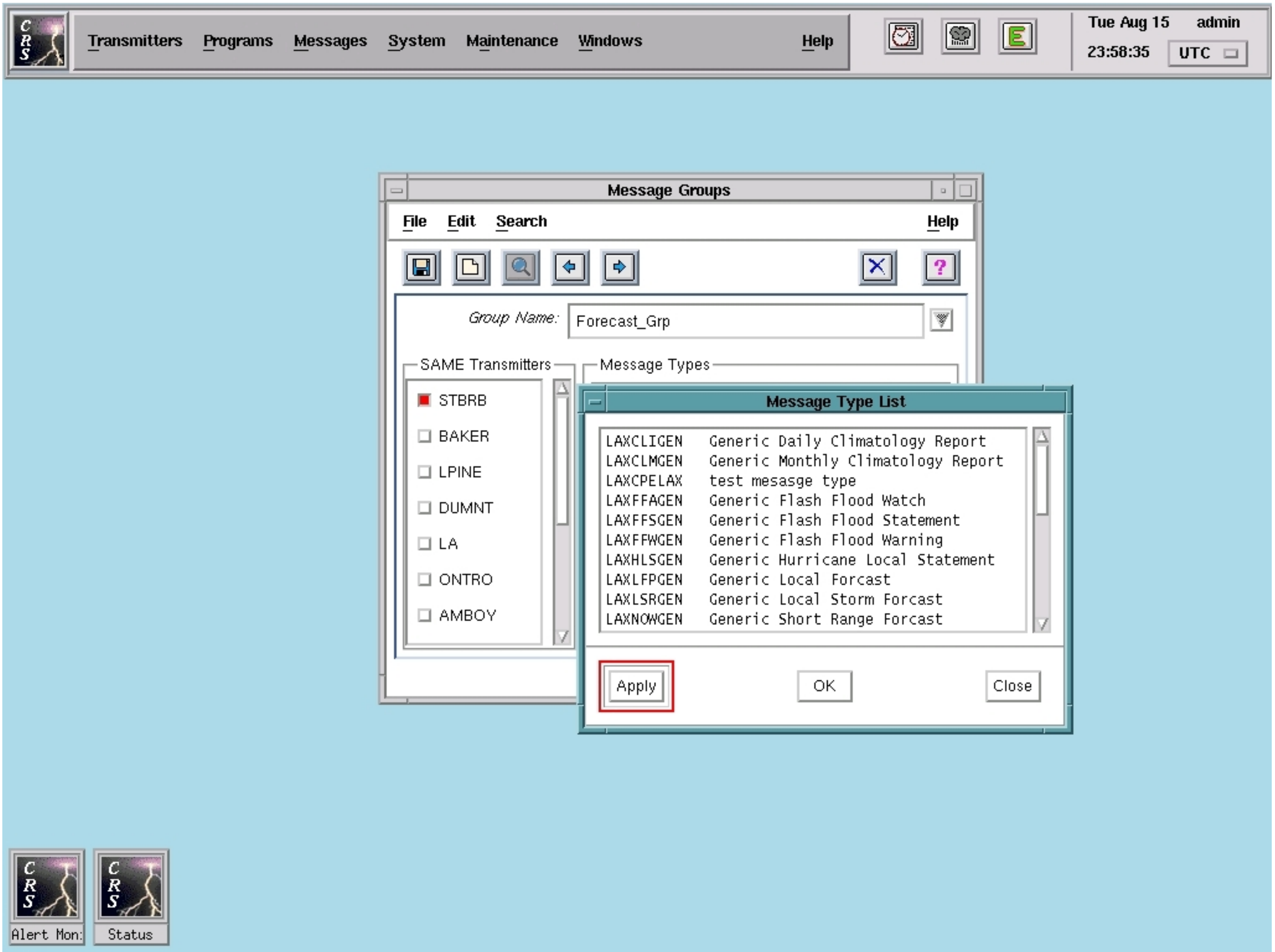

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:56:35
UTC
Message Groups
File
Edit
Search
Help
Group Name:
SAME Transmitters
☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
Message Types
Add
Remove
2 Record(s)
Alert Mon:
Status

Figure 55. Message Groups Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:58:35
UTC
Message Groups
File
Edit
Search
Help
Message Type List
Apply
OK
Close
Alert Mon:
Status

Group Name: Forecast_Grp

SAME Transmitters
- ☒ STBRB
- ☐ BAKER
- ☐ LPINE
- ☐ DUMNT
- ☐ LA
- ☐ ONTRO
- ☐ AMBOY

Message Types

LAXCLIGEN	Generic Daily Climatology Report
LAXCLMGEN	Generic Monthly Climatology Report
LAXCPELAX	test mesasge type
LAXFFAGEN	Generic Flash Flood Watch
LAXFFSGEN	Generic Flash Flood Statement
LAXFFWGEN	Generic Flash Flood Warning
LAXHLSGEN	Generic Hurricane Local Statement
LAXLFPGEN	Generic Local Forcast
LAXLSRGEN	Generic Local Storm Forcast
LAXNOWGEN	Generic Short Range Forcast

Figure 56. Message Type List Window

b. View/Edit Message Group. If your intent is to view or edit a message group, then perform the following steps:

1. Click the list button to the right of the Group Name field and select the desired group from the pick-list by double-clicking it. The group will be transferred to the Group Name field, and the Message Types subwindow will then update to reflect any message types previously specified for the group.

2. View/edit the selected group. If editing the group, follow Steps 3 through 6 described under "a." above, since the procedures for editing message groups are essentially the same as those for creating message groups.

3.6.2.3.4. Message Type Association

This submenu option allows you to create, view, or edit message associations for a message type. *(A message association simply defined is a message type that is assigned by the operator to replace and/or follow other message types also assigned by the operator.)* To perform the option, click the **Messages** menu and then select "Message Type Association". The ***Message Type Association*** window will then be presented (see Figure 57). To continue, perform "a." or "b." below depending on the desired operation.

a. Create Message Type Association. If your intent is to create a message type association, then perform the following steps:

   1. Click the CREATE hotkey (in the hotkey menu bar).

   2. Click the list button to the right of the Message Type field and then select the desired message type from the pick-list.

   3. Assign message types to be replaced or followed by the message type (selected in Step 2) by clicking the *Add* button directly under either the To Be Replaced or To Be Followed subwindow. In either case, the ***Message Type List*** window will then be presented (see Figure 58), whereupon you can specify message types (to be replaced or followed) by highlighting them and then clicking the *OK* button. Upon doing this, the highlighted message(s) will be copied to either the To Be Replaced or To Be Followed subwindow (depending, of course, on the option you are currently performing). The *Remove* button is also available under both subwindows to allow you to remove any selected (or highlighted) replacement/follow message.

   4. Click the SAVE hotkey (in the hotkey menu bar). The message type association will subsequently be saved, and you will receive confirmation to this effect in the status display area.

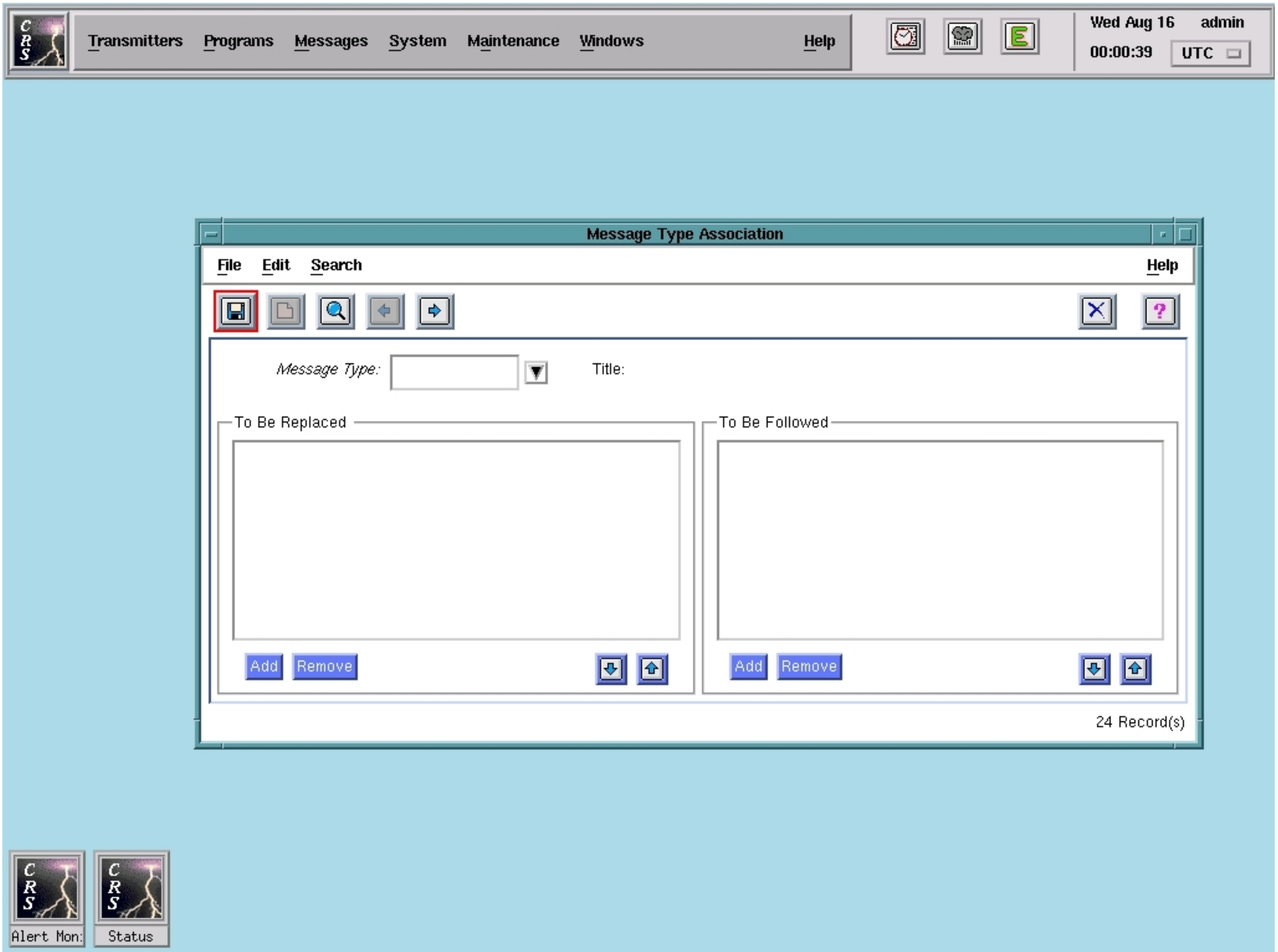
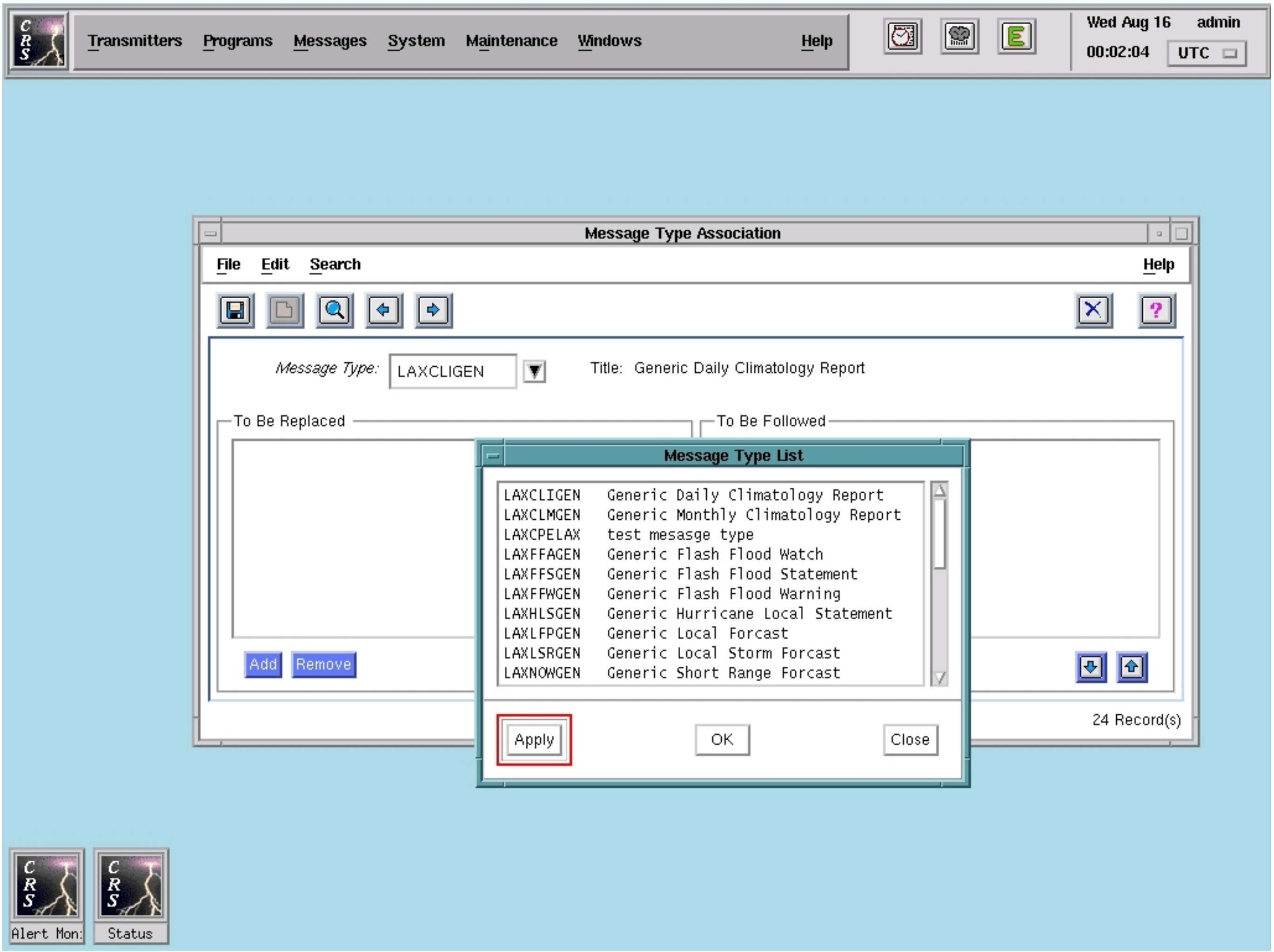

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
00:00:39
UTC
Message Type Association
File
Edit
Search
Help
Message Type:
Title:
To Be Replaced
To Be Followed
Add
Remove
Add
Remove
24 Record(s)
Alert Mon:
Status

Figure 57. Message Type Association Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
00:02:04
UTC
Message Type Association
File
Edit
Search
Help
To Be Replaced
To Be Followed
Add
Remove
Message Type List
Apply
OK
Close
24 Record(s)
Alert Mon:
Status

Message Type: LAXCLIGEN

Title: Generic Daily Climatology Report

```
LAXCLIGEN   Generic Daily Climatology Report
LAXCLMGEN   Generic Monthly Climatology Report
LAXCPELAX   test mesasge type
LAXFFAGEN   Generic Flash Flood Watch
LAXFFSGEN   Generic Flash Flood Statement
LAXFFWGEN   Generic Flash Flood Warning
LAXHLSGEN   Generic Hurricane Local Statement
LAXLFPGEN   Generic Local Forcast
LAXLSRGEN   Generic Local Storm Forcast
LAXNOWGEN   Generic Short Range Forcast
```

Figure 58. Message Type List Window

b. View/Edit Message Type Association. If your intent is to view or edit a message type association, then perform the following steps:

1. Click the list button to the right of the Message Type field and select the desired message type from the pick-list by double-clicking it. The message type will be transferred to the Message Type field, and the To Be Replaced and To Be Followed subwindows will update to reflect any previously defined replacement and follow messages.

2. View/edit the selected message type association. If editing the message type association, follow Steps 3 & 4 described under "a." above, since the procedures for editing message type associations are essentially the same as those for creating message type associations.

3.6.2.3.5. Weather Messages

This submenu option allows you to create voice- or diskette-based weather messages, as well as view, edit, or play back existing weather messages (i.e., weather messages "saved" to the CRS database). To perform the option, click the **Messages** menu and then select "Weather Messages". The ***Weather Messages*** window will then be presented (see Figure 59). To continue, perform "a.", "b.", or "c." below depending on the desired operation.

a. Create Voice-based Weather Message. If your intent is to create a voice-based weather message, then perform the following steps:

1. Click the CREATE hotkey (in the hotkey menu bar). The Creation Date/Time and Effective Date/Time fields will default to the current date/time.

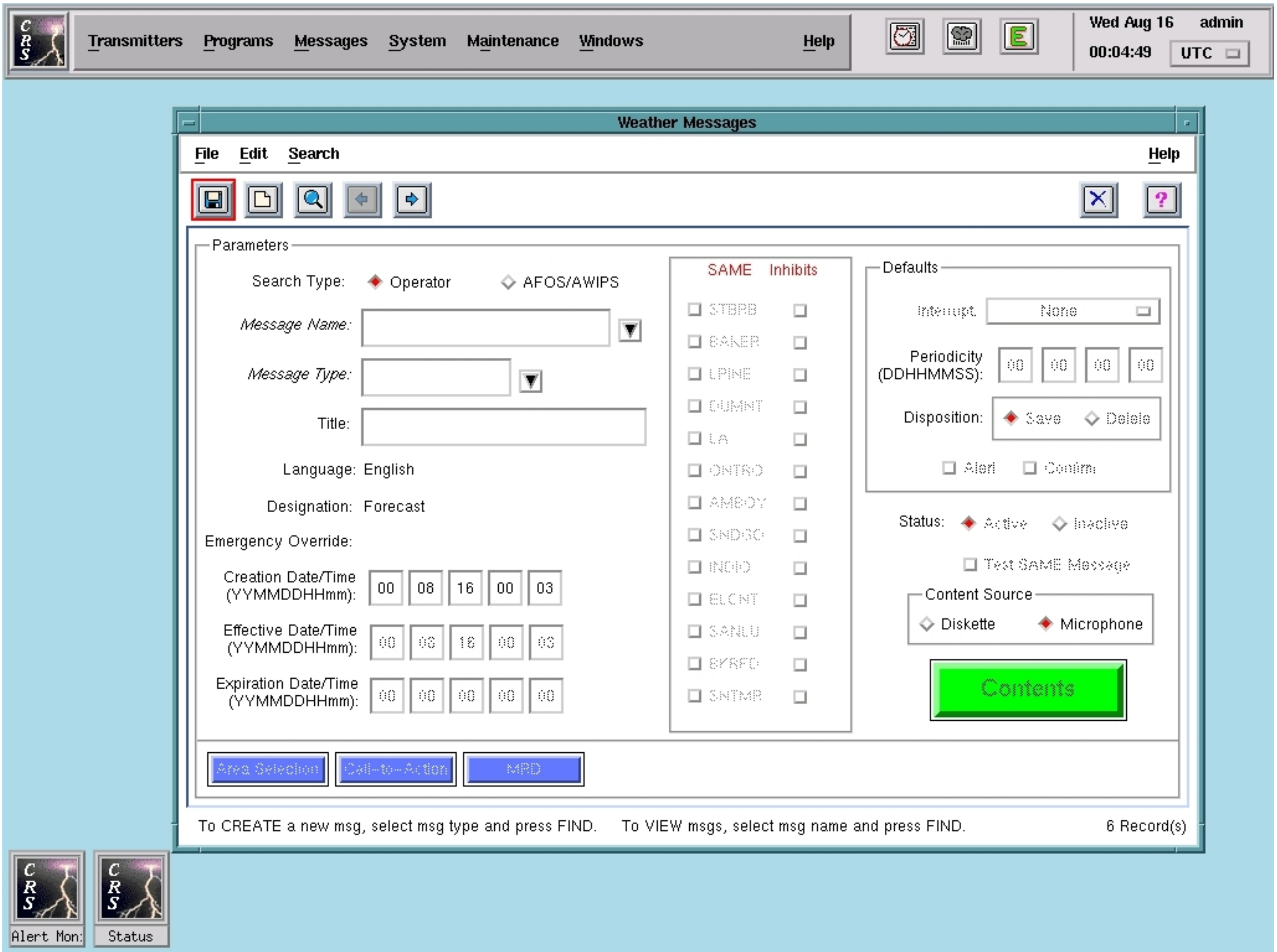
2. Click the list button to the right of the Message Type field and select the desired message type from the pick-list by double-clicking it. Please **Note** that if the Message data has the Listening Area/Zone Override option set, the ***Warning Message Window*** will be displayed (see Figure 67) which indicates that the software will use the default Listening Areas that are stored in the CRS database as part of the Message Type attributes, and the *Area Selection* button is greyed out, preventing the operator from modifying the *Listening Areas*. The message type will be transferred to the Message Type field, and the Title, Language, Designation, Emergency Override, Expiration Date/Time, SAME/Inhibits, and Default fields will update to reflect those parameters specified for the message type. Please also **note** that the Expiration Date/Time will be computed using the default (of current date/time) provided in the Effective Date/Time field and the Duration value specified for the selected message type. Also **note** that if you change the Effective Date/Time value from that of the default, the Expiration Date/Time field will not update. Thus, if you want to change the Expiration Date/Time value, you will need to enter the new value in the field.

3. Enter the desired weather message name in the Message Name field. This field will accept up to 20 ASCII characters.

4. Change message type parameters, if desired. Please **note**, however, that any changes you make to these parameters will be for this weather message instance only and hence will not affect parameter values (defaults) defined for the selected message type.

Default values can only be changed by performing the procedures described in paragraph 3.6.2.3.2.

If you do decide to change these parameters for this instance only and are unsure as to how, please refer to paragraph 3.6.2.3.2, since the procedures for changing these fields are the same for both operations (i.e., Create Message Types and Create Weather Messages).


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
00:04:49
UTC
Alert Mon:
Status
Weather Messages
File
Edit
Search
Help
Contents
Area Selection
Call-to-Action
MRD

Parameters

Search Type: ● Operator ○ AFOS/AWIPS

Message Name:

Message Type:

Title:

Language: English

Designation: Forecast

Emergency Override:

Creation Date/Time (YYMMDDHHmm): 00 08 16 00 03

Effective Date/Time (YYMMDDHHmm): 00 08 16 00 03

Expiration Date/Time (YYMMDDHHmm): 00 00 00 00 00

SAME	Inhibits
☐ STBRB	☐
☐ BANER	☐
☐ LPINE	☐
☐ DUMNT	☐
☐ LA	☐
☐ ONTRO	☐
☐ AMBOY	☐
☐ SNDGO	☐
☐ INDIO	☐
☐ ELCNT	☐
☐ SANLU	☐
☐ BYRFD	☐
☐ SNTMP	☐

Defaults

Interrupt: None

Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ● Save ○ Delete

☐ Alert ☐ Confirm

Status: ● Active ○ Inactive

☐ Test SAME Message

Content Source: ○ Diskette ● Microphone

To CREATE a new msg, select msg type and press FIND. To VIEW msgs, select msg name and press FIND. 6 Record(s)

Figure 59. Weather Messages Window

5. Create voice-based weather message contents by performing the following substeps:

   - Click "Microphone" in the Contents Source label and then click the *Contents* button. The ***Message Record/Playback*** window will then be presented (see Figure 60).

   - Record your message by first clicking the *REC* button. You will then be prompted to begin your recording, after which you can do so by speaking into the CRS headset/handset microphone. By default, you will have a maximum of 10 minutes of recording time. When you have 30 seconds of recording time left, the following message will be displayed: **Warning: 30 secs for recording.**

   - Click the *STOP* button upon completing your recording.

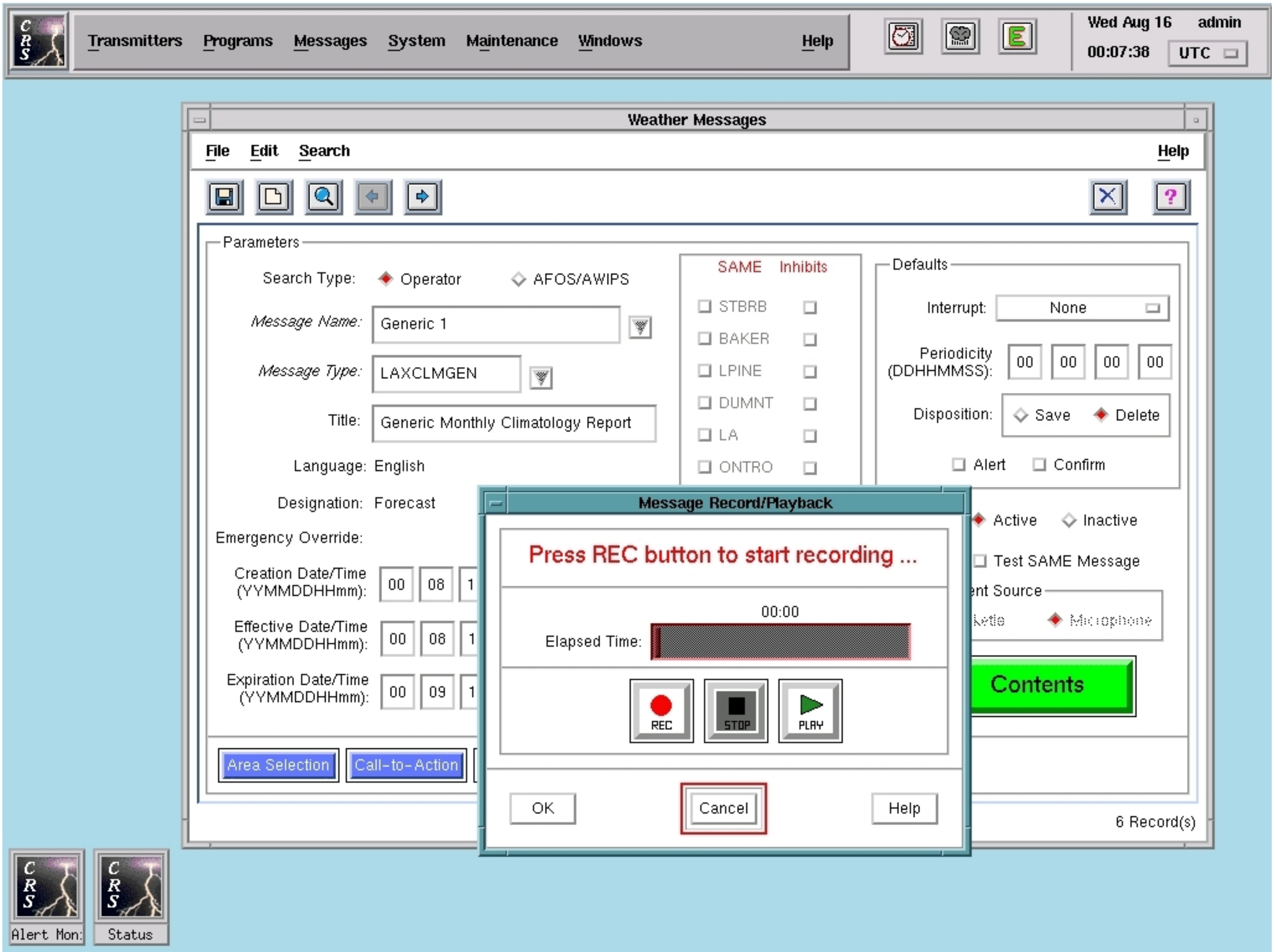
   - Click the *PLAY* button to play back the message.

   - If desired, re-record the message by performing the appropriate substeps above, and when satisfied with the message, click the *OK* button. Otherwise, click the *OK* button directly.

6. Specify, if desired, listening areas for the message type by performing the following substeps. Otherwise, use those currently defined for the message type. If uncertain, click the *Area Selection* button to view the listening areas for the selected message type. Please **note** that if you change the listening areas for the selected message type, this, like the other message type parameter changes described above, will be for this weather message instance only.

   - Click the *Area Selection* button. The ***Area Selection*** window will then be presented (see Figure 61), displaying four subwindows. (You will use the first two subwindows to access, display, and then copy desired listening areas into the third (or Areas/Zones) subwindow.)

   - Select the desired listening area type (i.e., Zones, Transmitters, or All Areas) by clicking the option button in the top-left (directly above


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16 admin
00:07:38
UTC
Weather Messages
File
Edit
Search
Help
Area Selection
Call-to-Action
Contents
REC
STOP
PLAY
OK
Cancel
Help
6 Record(s)
Alert Mon
Status

Parameters

Search Type: ● Operator ○ AFOS/AWIPS

Message Name: Generic 1

Message Type: LAXCLMGEN

Title: Generic Monthly Climatology Report

Language: English

Designation: Forecast

Emergency Override:

Creation Date/Time (YYMMDDHHmm): 00 08 1

Effective Date/Time (YYMMDDHHmm): 00 08 1

Expiration Date/Time (YYMMDDHHmm): 00 09 1

SAME Inhibits

☐ STBRB ☐
☐ BAKER ☐
☐ LPINE ☐
☐ DUMNT ☐
☐ LA ☐
☐ ONTRO ☐

Defaults

Interrupt: None

Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ○ Save ● Delete

☐ Alert ☐ Confirm

● Active ○ Inactive

☐ Test SAME Message

ent Source

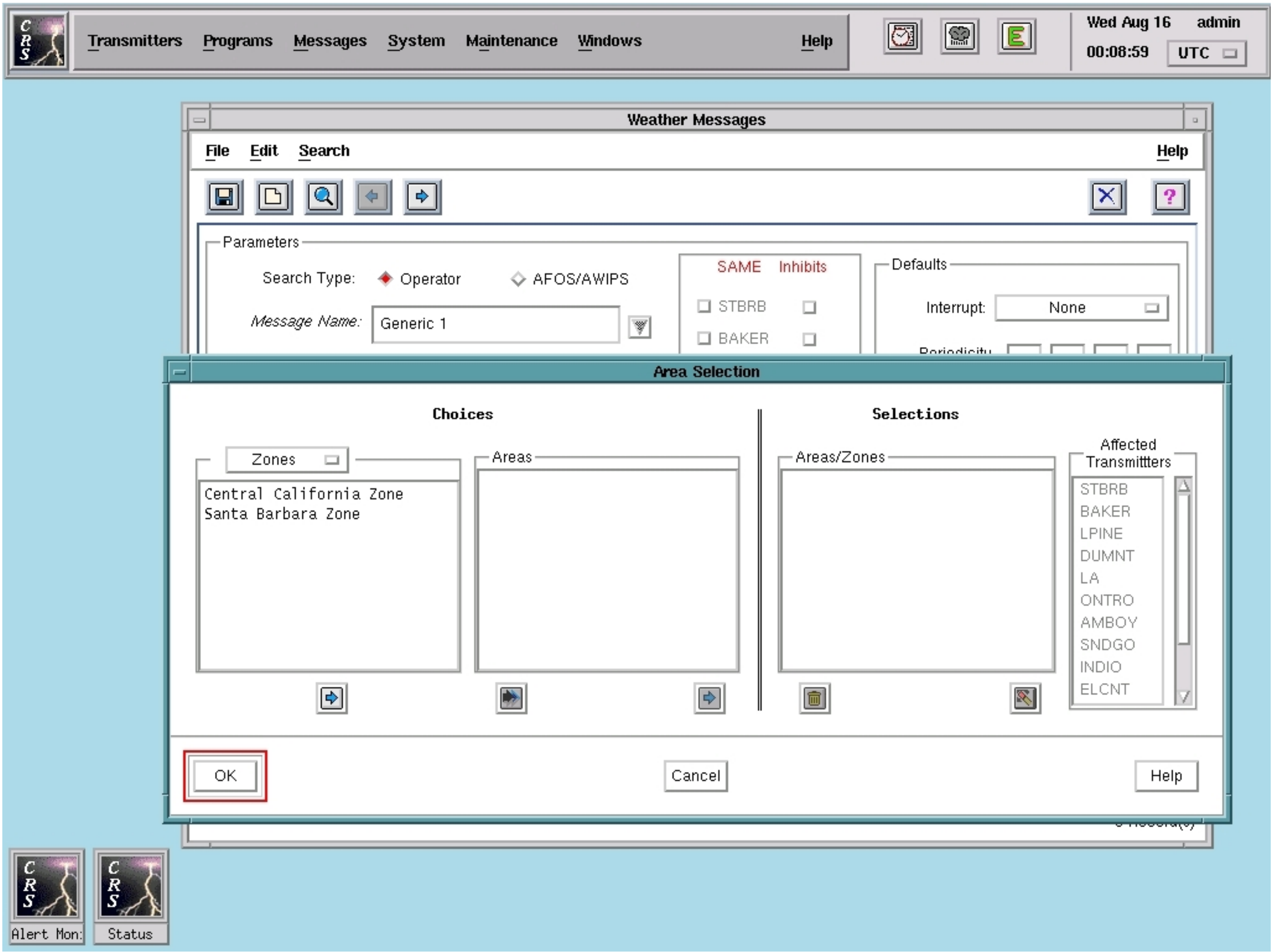
ette ● Microphone

Message Record/Playback

Press REC button to start recording ...

Elapsed Time: 00:00

Figure 60. Message Record/Playback Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
00:08:59
UTC
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
Defaults
Area Selection
Choices
Selections
Zones
Areas
Areas/Zones
Affected Transmittters
OK
Cancel
Help
Alert Mon:
Status

Search Type: ● Operator ○ AFOS/AWIPS

Message Name: Generic 1

☐ STBRB ☐

☐ BAKER ☐

Interrupt: None

Central California Zone
Santa Barbara Zone

STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT

Figure 61. Area Selection Window

the first subwindow) and then picking the option from the list. (Zone is the default for the field.) The first subwindow will update to reflect all listening areas for the type selected. If you selected Zones or Transmitters, the subwindow will display all the zones defined in or all the transmitters configured for the system, respectively. If you selected All Areas, the subwindow will remain blank, and the Areas subwindow will update to reflect all areas (i.e., counties and cities) defined in the system.

- Click the desired listening area type in the first subwindow (i.e., if you selected Zones or Transmitters). The Areas subwindow (or second subwindow) will update to reflect those areas previously specified for the listening area type via the Listening Area submenu (see paragraph 3.6.2.1.2).

- Transfer desired areas (from the Areas subwindow) into the Areas/Zones (or third) subwindow by highlighting them and then clicking the single right arrow button. The highlighted entries will then be copied into the Areas/Zones subwindow. As an alternative, copy all of the areas (from the Areas subwindow) into the Areas/Zones subwindow by clicking the double right arrow button. As another alternative, if you want to copy an entire Zone into the Areas/Zones subwindow, highlight the zone in the first subwindow and then click the single right arrow button (directly under the first subwindow).

  Upon transferring areas into the Areas/Zones subwindow, the Affected Transmitters (or fourth) subwindow will update to reflect those transmitters assigned to the transferred areas (again, as defined via the Listening Areas submenu). Affected transmitters will be shaded dark, whereas unaffected transmitters will be shaded light.

- Click the *OK* button and you will be returned to the ***Weather Messages*** window. Please **note** that all new voice- and diskette-based messages must have at least one listening area defined; otherwise, an error message will be displayed.

7. Specify, if desired, a Call-to-Action (CTA) message component for the weather message by first clicking the *Call-to-Action* button. The ***Call-to-Action*** window will then be presented (see Figure 62). If the message is from AFOS and CTA message components are associated with the current message, the AFOS/AWIPS Defined field will indicate a "Yes" and the Type, List, and Call-to-Action Message fields will be inactive, allowing you to change only the Timeout field value. Otherwise, if the message is from CRS, the field will indicate a "No" and all fields will be accessible to you except Creation Date/Time.

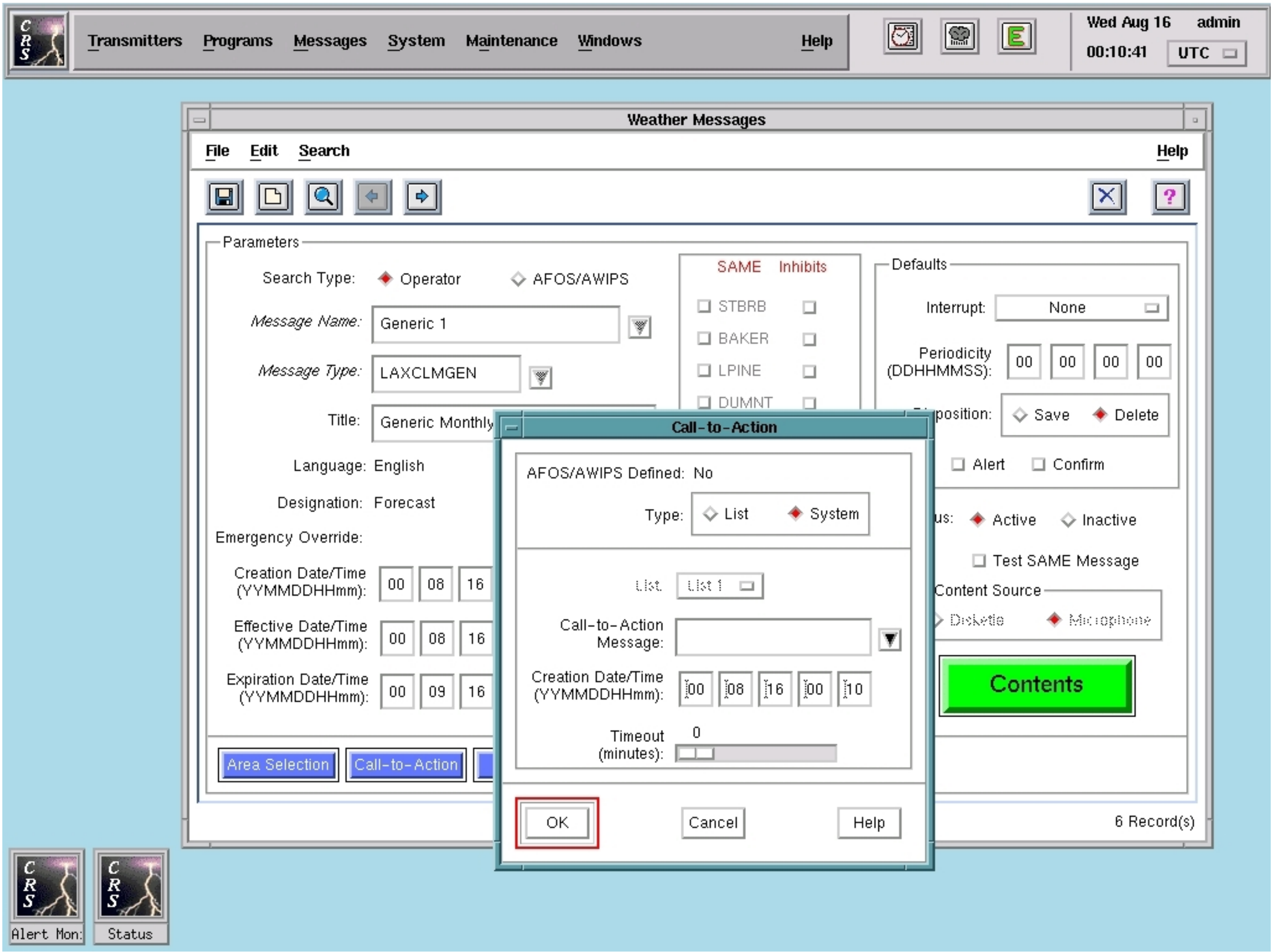
   (Please **note** that when creating a weather message and associated CTA message component, the Creation Date/Time field (in the ***Call-to-Action*** window) will be set to the effective date/time of the weather message and is "display only". Also **note** that if for some reason you created (and saved) a weather message without a CTA message component and later on decided that you wanted to specify one for the weather message, you can still do this by retrieving the record and performing the steps described below. In doing so, the Creation Date/Time field (in the ***Call-to-Action*** window) will, upon saving the changes to the weather message, be updated to reflect the current date/time. Lastly, if for some reason you wanted to remove a CTA message component previously defined for a weather message, you can do this as well by retrieving the record, accessing the ***Call-to-Action*** window, placing the cursor in the Call-to-Action Message field, entering a "Ctrl d" (to delete the contents of the field), clicking the *OK* button, and then saving the weather message.)

   To continue, perform one of the following depending on the desired operation:

   - Access CTA Message Lists for the Message Type. To access CTA message lists associated with the selected message type, perform the following substeps:

     - Click the List radio button in the Type field.

     - Click the option button in the List field and then pick the desired CTA list from the option list. (This display list will contain only those


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
00:10:41
UTC
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
STBRB
BAKER
LPINE
DUMNT
Defaults
Area Selection
Call-to-Action
Contents
6 Record(s)
Call-to-Action
OK
Cancel
Help
Alert Mon:
Status

Search Type: ● Operator ○ AFOS/AWIPS

Message Name: Generic 1

Message Type: LAXCLMGEN

Title: Generic Monthly

Language: English

Designation: Forecast

Emergency Override:

Creation Date/Time (YYMMDDHHmm): 00 08 16

Effective Date/Time (YYMMDDHHmm): 00 08 16

Expiration Date/Time (YYMMDDHHmm): 00 09 16

Interrupt: None

Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ○ Save ● Delete

☐ Alert ☐ Confirm

Status: ● Active ○ Inactive

☐ Test SAME Message

Content Source: ○ Diskette ● Microphone

AFOS/AWIPS Defined: No

Type: ○ List ● System

List: List 1

Call-to-Action Message:

Creation Date/Time (YYMMDDHHmm): 00 08 16 00 10

Timeout (minutes): 0

Figure 62. Call-to-Action Window

CTA lists specified for the selected message type.) Upon doing this, the Timeout field will update to reflect the Timeout value specified for the list.

  - Click the list button to the right of the Call-to-Action Message field and then pick the desired CTA message from the pick-list. (This display list will contain only those CTA messages associated with or specified for the selected CTA list and message type.)

- Access all CTA Messages in the System. To access all CTA message components in the system, perform the following substeps:

  - Click the System radio button in the Type field. (By selecting the System option, the List option button will become inactive.)

  - Click the list button to the right of the Call-to-Action Message field and then pick the desired CTA message from the pick-list. (This display list will contain all CTA messages in the system.)

Once you have specified the desired CTA message in the Call-to-Action Message field via one of the two above-described options, specify/change the Timeout for the CTA message by using the slider to select the desired timeout value (in minutes). Then, click the *OK* button. Your CTA message will be saved and you will be returned to the ***Weather Messages*** window.

If you selected a CTA message from a CTA list associated with the selected message type, then this particular CTA message would be broadcast continually (i.e., following the broadcast of the weather message) until your timeout value was reached, regardless of the CTA message's sequence relative to other CTA lists/messages that may exist for the selected message type. Following the timeout, the CRS would then default to the next lowest list and would broadcast in order those CTA messages associated with the list until the timeout for that list was reached. This scenario would continue for all subsequent lower level lists associated with the selected message type.

As an example, if you selected CTA Message 3 in CTA List 1 for a message type that had 2 lists with 5 messages each and you specified a timeout value of say 5 minutes, the CTA message would be broadcast continually for 5 minutes following the broadcast of the weather message. Following the timeout, CRS would then default to CTA Message 1 in CTA List 2 and would broadcast the 5 messages (associated with CTA List 2) in order until the timeout (for CTA List 2) was reached.

If, on the other hand, you selected a CTA message from within the system (because there were no CTA lists/messages associated with the selected message type), then the CTA message would be broadcast continually until your specified timeout value was reached.

8. Specify, if desired, a Message Reference Descriptor (MRD) for the weather message by first clicking the *MRD* button. The ***Message Reference Descriptor (MRD)*** window will then be presented (see Figure 63), allowing you to specify an MRD for the message and optionally to specify the CRS identifiers of messages to be replaced and/or followed by the message. To continue, perform the following substeps:

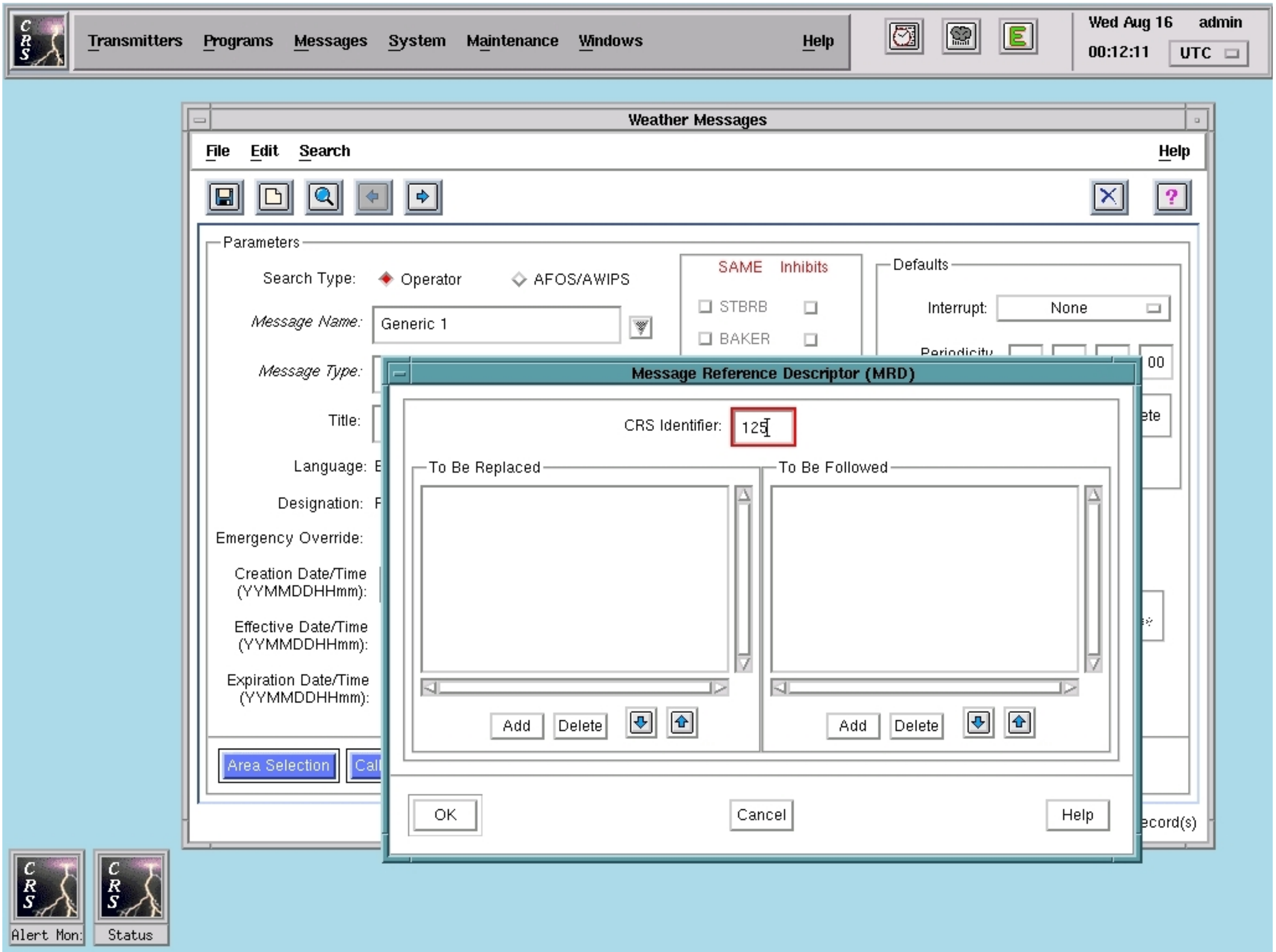
   - Enter the three-digit identifier for the CRS message in the CRS Identifier field.

   - If you wish to replace and/or follow existing CRS messages (that contain known CRS identifiers) with the new message, perform the following substeps (otherwise, go to the next bullet):

     - Click the *Add* button under the To Be Replaced or To Be Followed subwindow (depending on the desired operation). Either the ***MRD Replace List*** window or the ***MRD Follow List*** window will then be presented (see Figure 64 and Figure 65).

     - Select the desired message identifier by highlighting it and then clicking the *OK* button to copy it into the To Be Replaced or To Be Followed subwindow. Repeat this for any other messages you wish to replace or follow.

     - Once you have copied all desired identifiers into the respective subwindow(s), use the *Up* and *Down* arrow buttons, as necessary, to move an identifier up or down (or "prioritize" it)within the list of identifiers. The *Delete* button is also provided (for both Replacement and Follow messages) to allow you to delete identifier(s). To delete an identifier, merely highlight it and then click the *Delete* button.



Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
00:12:11
UTC
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
STBRB
BAKER
Defaults
Periodicity
00
Message Type:
Title:
Language:
Designation:
Emergency Override:
Creation Date/Time (YYMMDDHHmm):
Effective Date/Time (YYMMDDHHmm):
Expiration Date/Time (YYMMDDHHmm):
Area Selection
Message Reference Descriptor (MRD)
To Be Replaced
To Be Followed
Add
Delete
OK
Cancel
Help
Alert Mon:
Status

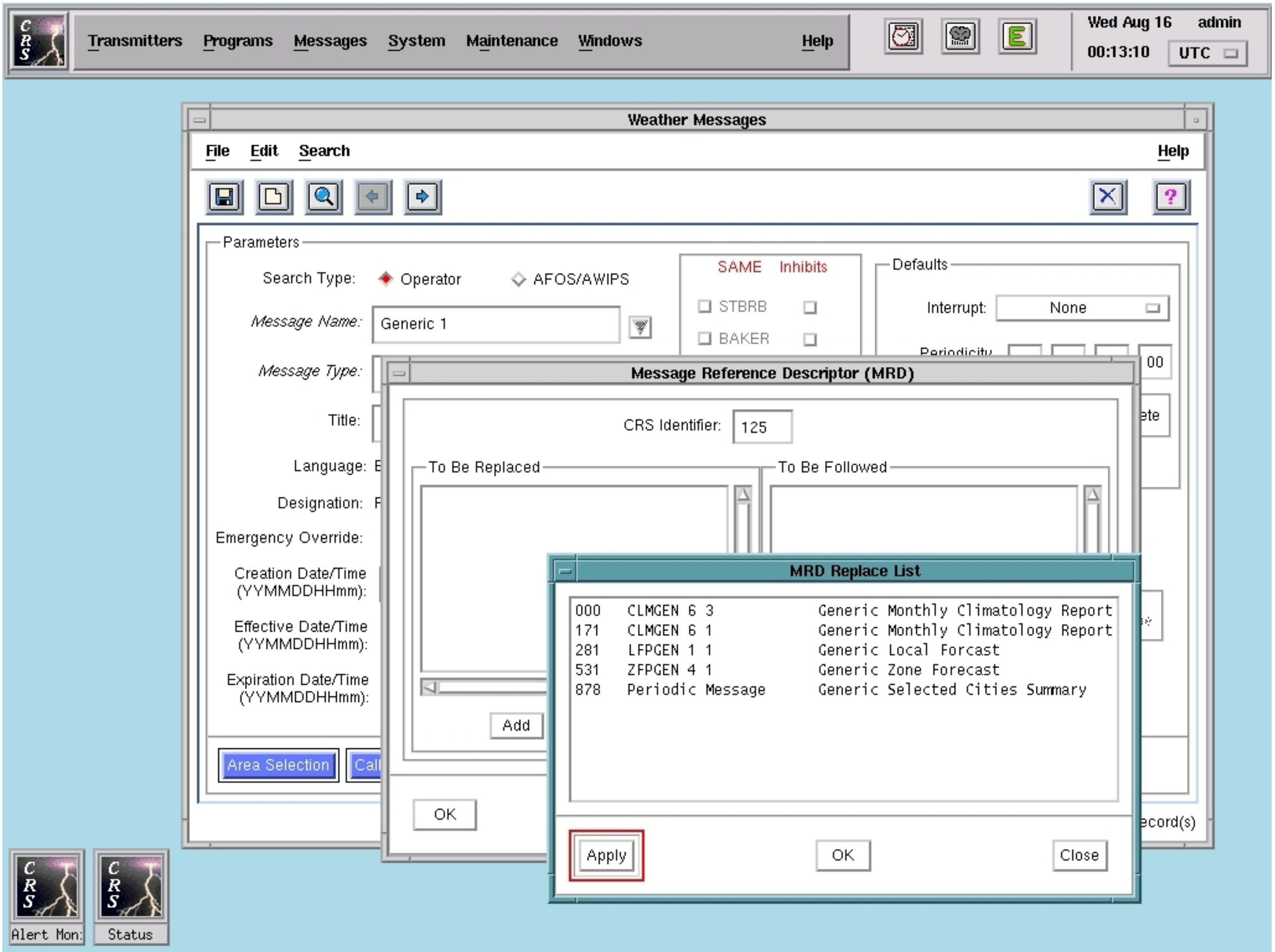
Search Type: ● Operator ◇ AFOS/AWIPS

Message Name: Generic 1

Interrupt: None

CRS Identifier: 125

Figure 63. Message Reference Descriptor (MRD) Window



Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
00:13:10
UTC
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
STBRB
BAKER
Defaults
Periodicity
00
Title:
Language:
Designation:
Emergency Override:
Creation Date/Time (YYMMDDHHmm):
Effective Date/Time (YYMMDDHHmm):
Expiration Date/Time (YYMMDDHHmm):
Area Selection
Message Reference Descriptor (MRD)
To Be Replaced
To Be Followed
Add
OK
MRD Replace List
Apply
OK
Close
Alert Mon:
Status

Search Type: ● Operator ◇ AFOS/AWIPS

Message Name: Generic 1

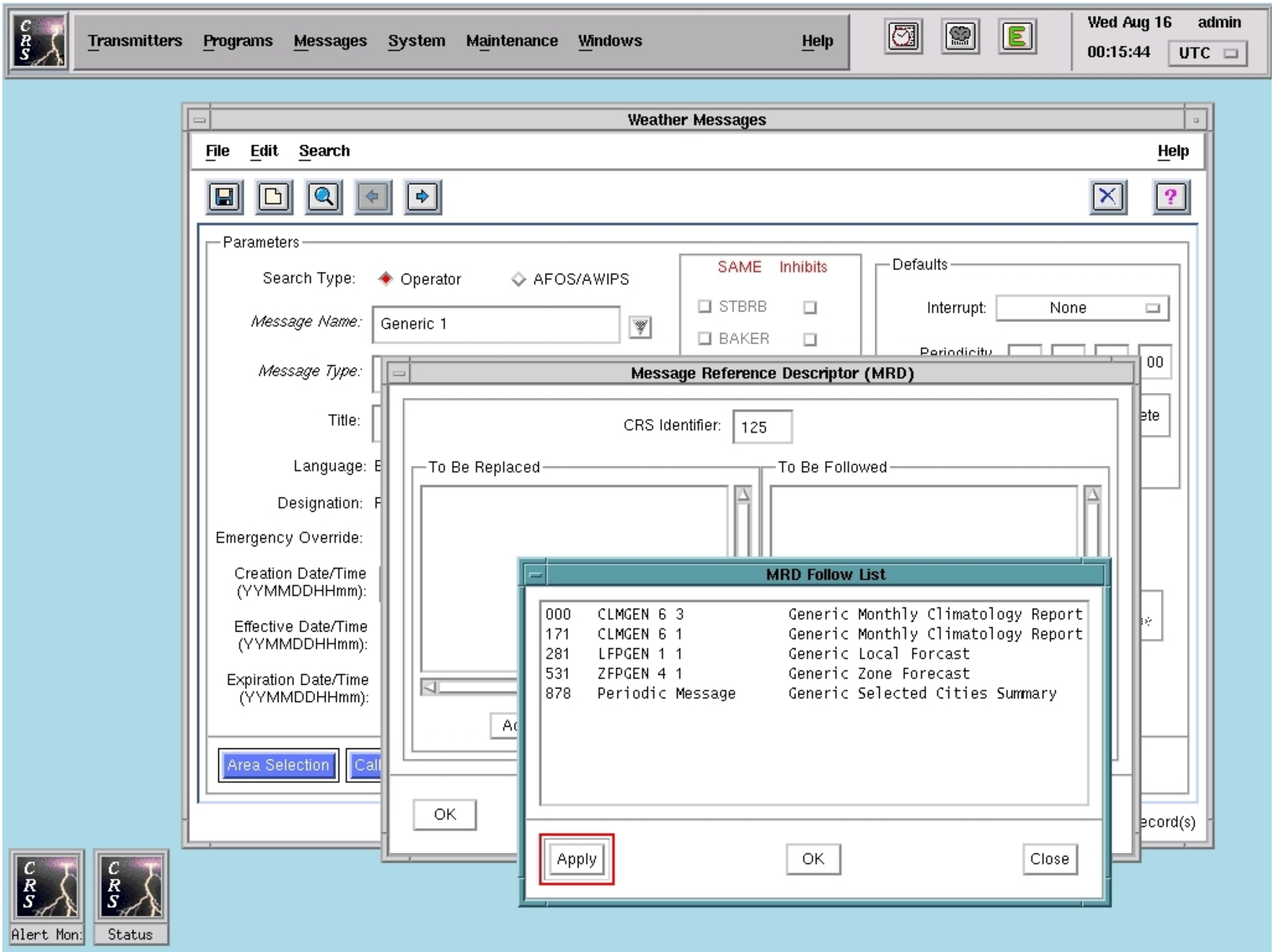
Message Type:

Interrupt: None

CRS Identifier: 125

```
000   CLMGEN 6 3          Generic Monthly Climatology Report
171   CLMGEN 6 1          Generic Monthly Climatology Report
281   LFPGEN 1 1          Generic Local Forcast
531   ZFPGEN 4 1          Generic Zone Forecast
878   Periodic Message    Generic Selected Cities Summary
```

Figure 64. MRD Replace List Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
STBRB
BAKER
Defaults
Periodicity
00
Message Type:
Title:
Language:
Designation:
Emergency Override:
Creation Date/Time (YYMMDDHHmm):
Effective Date/Time (YYMMDDHHmm):
Expiration Date/Time (YYMMDDHHmm):
Area Selection
Call
Message Reference Descriptor (MRD)
To Be Replaced
To Be Followed
OK
MRD Follow List
Apply
OK
Close
ecord(s)
Alert Mon:
Status

Wed Aug 16 admin
00:15:44 UTC

Search Type: ◆ Operator ◇ AFOS/AWIPS

Message Name: Generic 1

Interrupt: None

CRS Identifier: 125

```
000   CLMGEN 6 3          Generic Monthly Climatology Report
171   CLMGEN 6 1          Generic Monthly Climatology Report
281   LFPGEN 1 1          Generic Local Forcast
531   ZFPGEN 4 1          Generic Zone Forecast
878   Periodic Message    Generic Selected Cities Summary
```

Figure 65. MRD Follow List Window

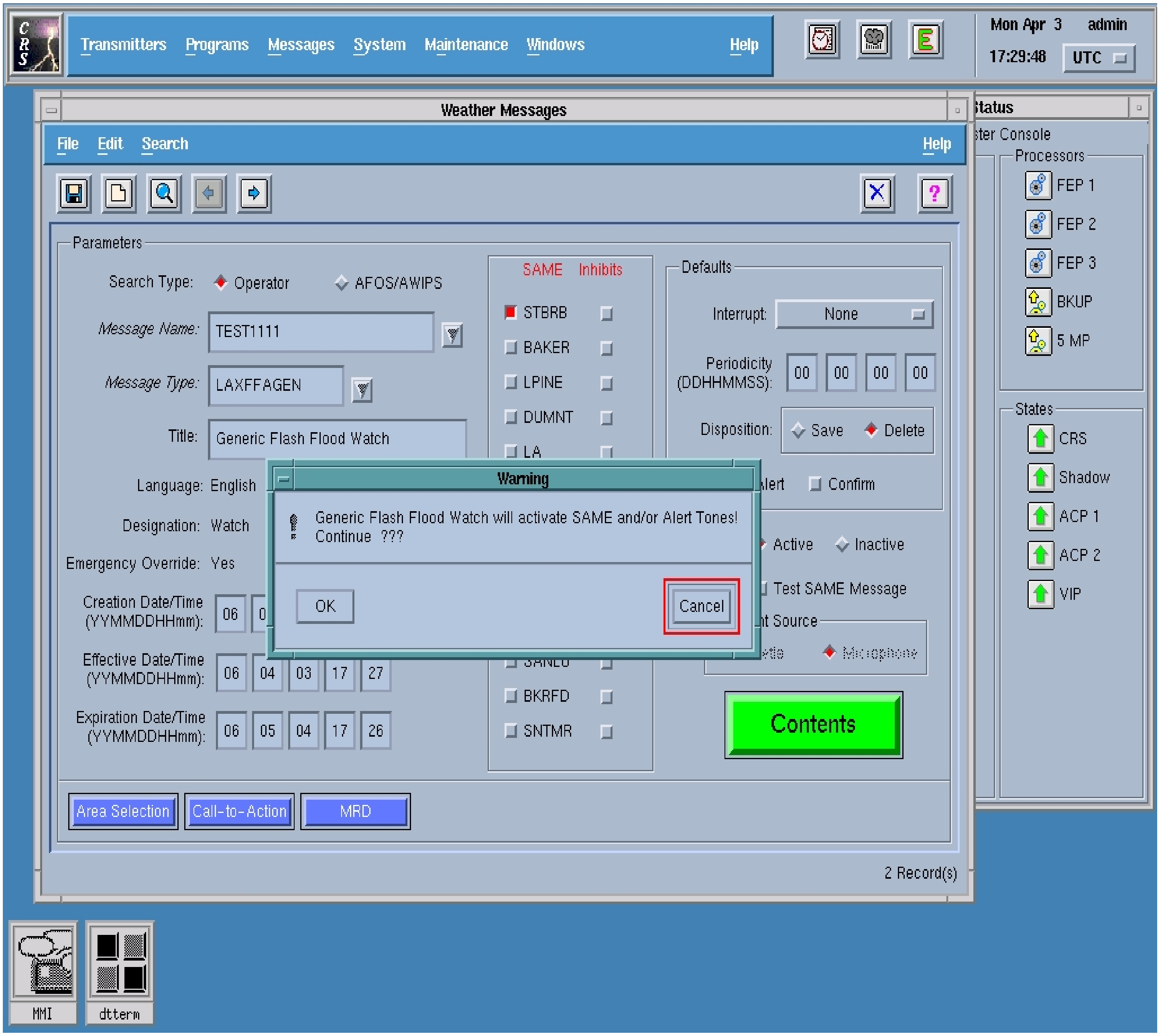
- Click the *OK* button. Your MRD data will be saved and you will be returned to the ***Weather Message*** window.

9. Select/deselect SAME and/or Alert tones, if desired, by clicking the toggles associated with the SAME transmitter(s) and/or Alert tone fields. If either is selected and the SAME/Alert Tone Warning Validation toggle is selected in the Site Configuration parameters (specifically, the Interface parameters), then a warning will be displayed (to confirm SAME and/or Alert tone selection) when you attempt to save the message.

10. Inhibit the broadcast of the message on any configured transmitter(s), if desired, by clicking the Inhibit toggle associated with the transmitter(s).

11. Specify the message as a test SAME message, if desired, by clicking the toggle button to the left of the Test SAME Message field.

12. Click the SAVE hotkey (in the hotkey menu bar). The weather message will subsequently be saved, and you will receive confirmation to this effect in the status display area.
    Please **note** If the Tone Validation option has been selected via *Site Configuration Window* (Maintenance->Site Configuration->Interface), the ***Warning Message Window*** will be displayed (see Figure 66) which indicates that *SAME and/or Alert* tones have been selected.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
17:29:48
UTC
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
STBRB
BAKER
LPINE
DUMNT
LA
BKRFD
SNTMR
Defaults
Area Selection
Call-to-Action
MRD
Contents
Status
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
Warning
OK
Cancel
MMI
dtterm

Search Type: ● Operator ○ AFOS/AWIPS

Message Name: TEST1111

Message Type: LAXFFAGEN

Title: Generic Flash Flood Watch

Language: English

Designation: Watch

Emergency Override: Yes

Creation Date/Time (YYMMDDHHmm): 06 0

Effective Date/Time (YYMMDDHHmm): 06 04 03 17 27

Expiration Date/Time (YYMMDDHHmm): 06 05 04 17 26

Interrupt: None

Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ○ Save ● Delete

☐ Confirm

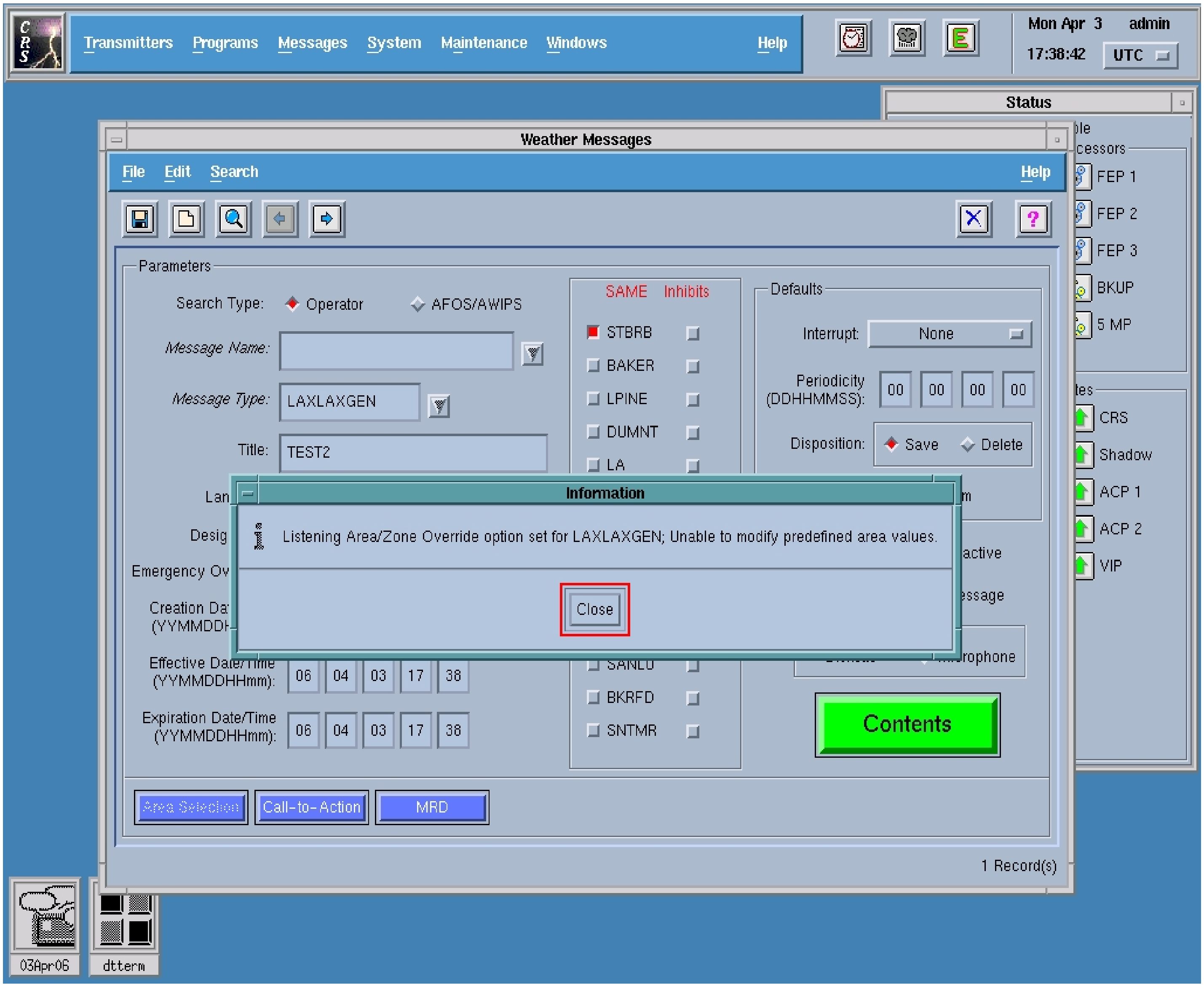
● Active ○ Inactive

☐ Test SAME Message

Generic Flash Flood Watch will activate SAME and/or Alert Tones!
Continue ???

2 Record(s)

Figure 66. Warning Message Window - SAME and/or Alert tones



Information

Listening Area/Zone Override option set for LAXLAXGEN; Unable to modify predefined area values.

Search Type: ● Operator ○ AFOS/AWIPS

Message Name:

Message Type: LAXLAXGEN

Title: TEST2

Interrupt: None

Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ● Save ○ Delete

Effective Date/Time (YYMMDDHHmm): 06 04 03 17 38

Expiration Date/Time (YYMMDDHHmm): 06 04 03 17 38

1 Record(s)

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
17:38:42
UTC
Status
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
☒ STBRB ☐
☐ BAKER ☐
☐ LPINE ☐
☐ DUMNT ☐
☐ LA ☐
☐ SANLU ☐
☐ BKRFD ☐
☐ SNTMR ☐
Defaults
Close
Contents
Area Selection
Call-to-Action
MRD
FEP 1
FEP 2
FEP 3
BKUP
5 MP
CRS
Shadow
ACP 1
ACP 2
VIP
03Apr06
dtterm

Figure 67. Warning Message Window - Listening Area/Zone Override

b. Create Diskette-based Weather Message. If your intent is to create a diskette-based weather message, then perform the following steps:

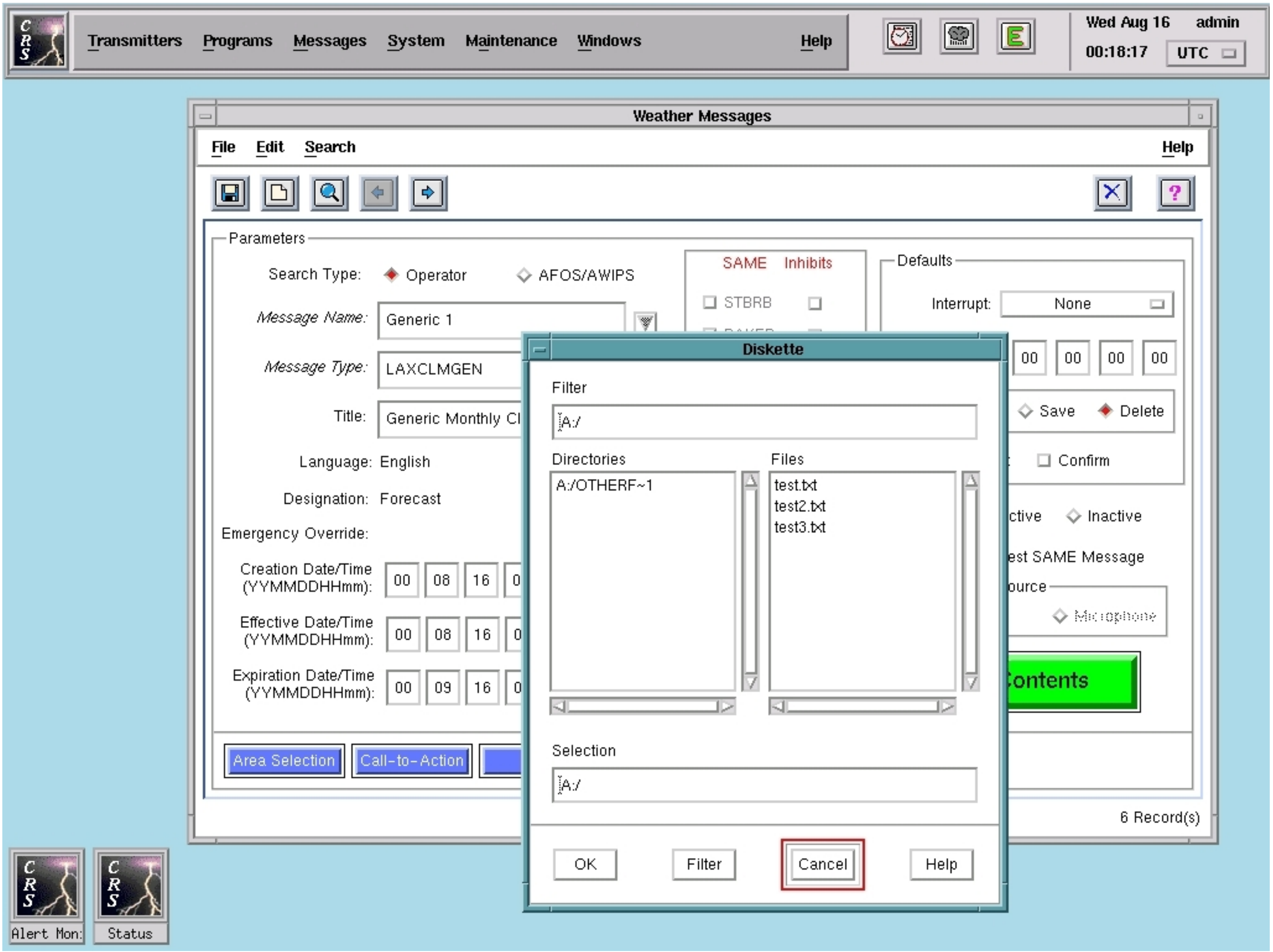
1. Click the CREATE hotkey (in the hotkey menu bar).

2. Perform Steps 2, 3, 4, 6, 7, & 8 under "a." above.

3. Insert floppy diskette in drive mechanism.

4. Click "Diskette" in the Contents Source label and then click the *Contents* button. The ***Diskette*** window will then be presented (see Figure 68), displaying the file(s) contained on the diskette. (If the desired file is subordinated under a particular directory on the diskette, then double-click the directory (in the Directories subwindow) or highlight the directory and then click the *Filter* button. The files associated with the selected directory will then be displayed in the Files subwindow.)

5. Double-click the desired message file or highlight it and then click the *OK* button. The ***Message Text Contents*** window will then be presented (see Figure 69), allowing you to view, edit, or play back the message. (If the retrieved message is in Spanish, then the text would appear in Spanish as shown in Figure 70.) To play back the message, merely click the *Play* button, whereupon the ***Message Record/***



Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
00:18:17
UTC
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
☐ STBRB ☐
Defaults
Save
Confirm
Inactive
est SAME Message
ource
Microphone
Contents
Area Selection
Call-to-Action
Diskette
OK
Filter
Cancel
Help
Alert Mon:
Status

Search Type: ● Operator ○ AFOS/AWIPS

Message Name: Generic 1

Message Type: LAXCLMGEN

Title: Generic Monthly Cl

Language: English

Designation: Forecast

Emergency Override:

Creation Date/Time (YYMMDDHHmm): 00 08 16 0

Effective Date/Time (YYMMDDHHmm): 00 08 16 0

Expiration Date/Time (YYMMDDHHmm): 00 09 16 0

Interrupt: None

00 00 00 00

○ Save ● Delete

6 Record(s)

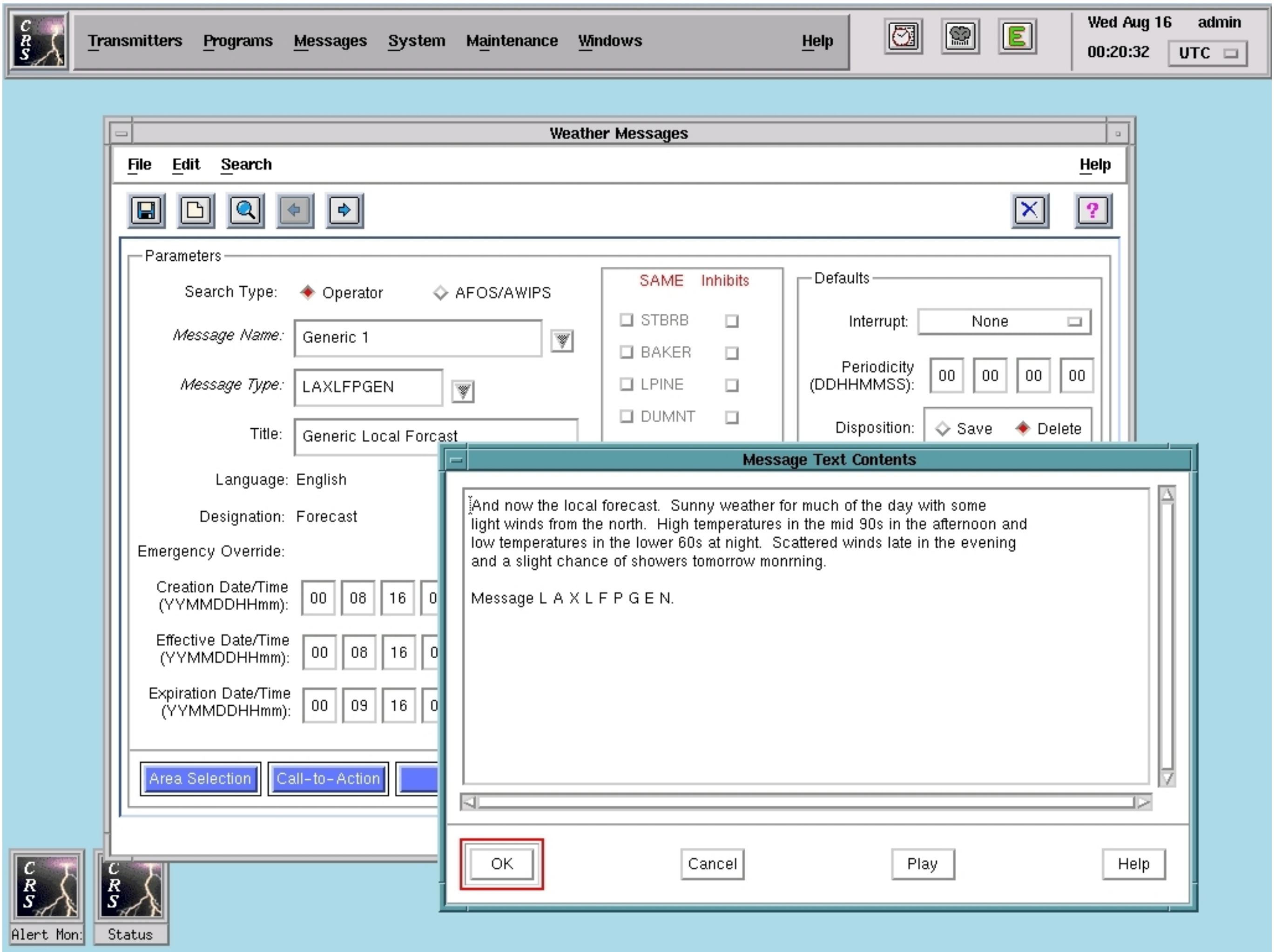
Filter: A:/

Directories: A:/OTHERF~1

Files:
test.txt
test2.txt
test3.txt

Selection: A:/

Figure 68. Diskette Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
00:20:32
UTC
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
Defaults
Message Text Contents
Area Selection
Call-to-Action
OK
Cancel
Play
Help
Alert Mon:
Status

Search Type: ◆ Operator ◇ AFOS/AWIPS

Message Name: Generic 1

Message Type: LAXLFPGEN

Title: Generic Local Forcast

Language: English

Designation: Forecast

Emergency Override:

Creation Date/Time (YYMMDDHHmm): 00 08 16 0

Effective Date/Time (YYMMDDHHmm): 00 08 16 0

Expiration Date/Time (YYMMDDHHmm): 00 09 16 0

SAME	Inhibits
☐ STBRB	☐
☐ BAKER	☐
☐ LPINE	☐
☐ DUMNT	☐

Interrupt: None

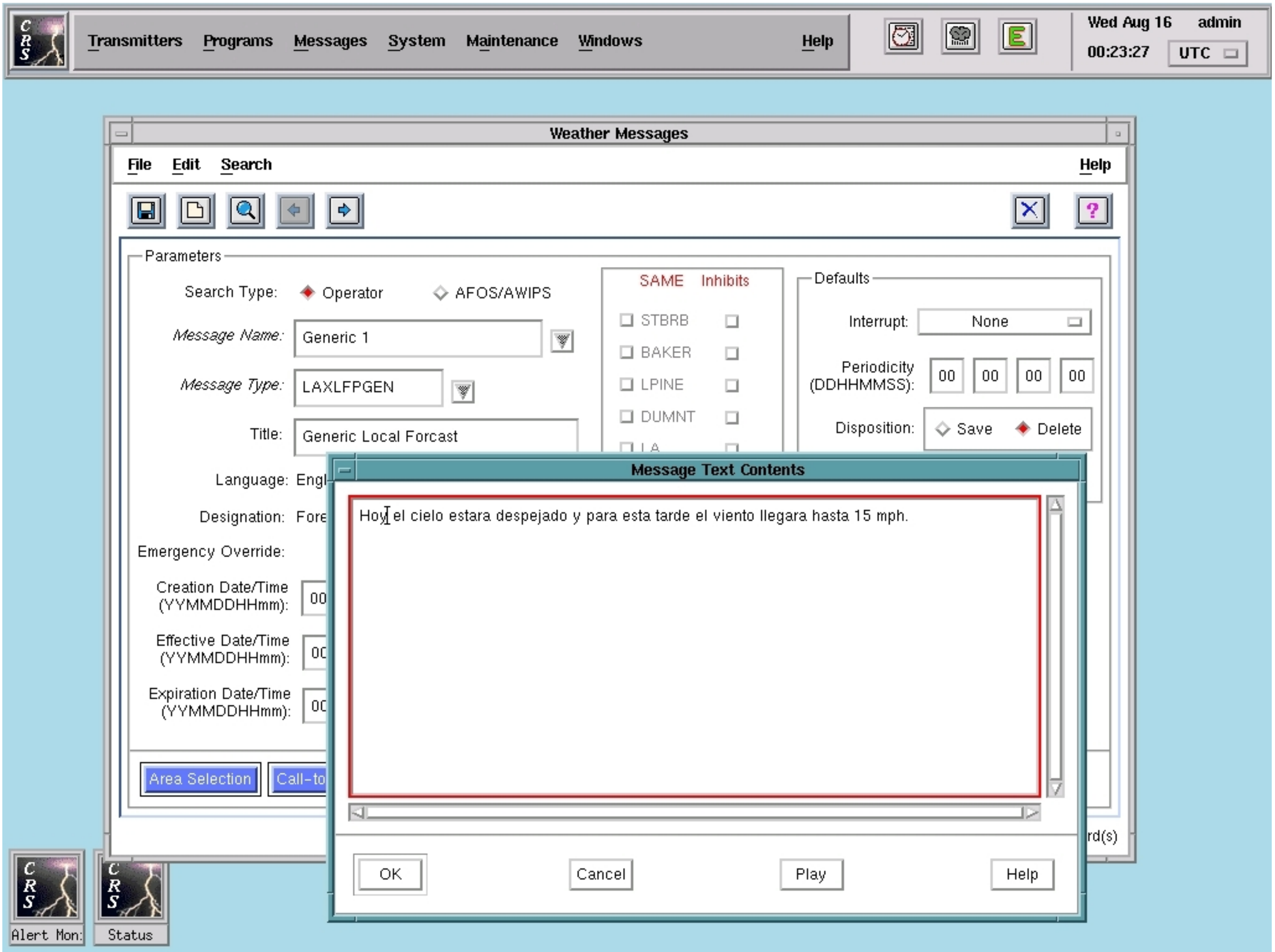
Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ◇ Save ◆ Delete

And now the local forecast. Sunny weather for much of the day with some light winds from the north. High temperatures in the mid 90s in the afternoon and low temperatures in the lower 60s at night. Scattered winds late in the evening and a slight chance of showers tomorrow monrning.

Message L A X L F P G E N.

Figure 69. Message Text Contents Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16 admin
00:23:27
UTC
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
STBRB
BAKER
LPINE
DUMNT
LA
Defaults
Emergency Override:
Area Selection
Call-to
rd(s)
Message Text Contents
OK
Cancel
Play
Help
Alert Mon:
Status

Search Type: ◆ Operator ◇ AFOS/AWIPS

Message Name: Generic 1

Message Type: LAXLFPGEN

Title: Generic Local Forcast

Language: Engl

Designation: Fore

Creation Date/Time (YYMMDDHHmm): 00

Effective Date/Time (YYMMDDHHmm): 00

Expiration Date/Time (YYMMDDHHmm): 00

Interrupt: None

Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ◇ Save ◆ Delete

Hoy el cielo estara despejado y para esta tarde el viento llegara hasta 15 mph.

Figure 70. Message Text Contents Window (with Spanish Text)

Playback window will be presented (see Figure 60), and then click the *Play* button in that window, as well. The message will then be played.

6. Click the *Cancel* button, if you're within the ***Message Record/Playback*** window, and then click the *OK* button in the ***Message Text Contents*** window; otherwise, click the *OK* button directly. This will acknowledge or "accept" the current text buffer and thus ensure that the message text will be saved when performing the next step (i.e., Step 7).

7. Click the SAVE hotkey (in the hotkey menu bar). The weather message will subsequently be saved, and you will receive confirmation to this effect in the status display area.

c. View/Edit/Play Back Weather Message. If your intent is to view, edit, or play back a weather message, then perform the following steps:

1. Select the desired origination option (i.e., Operator or AFOS/AWIPS) in the Search Type field by clicking the associated radio button. Operator is the default for this field.

2. Click the list button to the right of the Message Name field and select the desired message from the pick-list by double-clicking it. The message will be transferred to the Message Name field, and the message type and message type parameter fields will update to reflect those values associated with the message (provided there is a message type associated with the selected message).

3. View/edit/play back the selected message. If editing the message, follow Steps 4 through 12 described under "a." above, since the procedures for editing messages are essentially the same as those for creating messages. Please **note** that when viewing or editing weather message contents, you can view/play back the contents by clicking the *Contents* button. Upon doing this, either the ***Message Text Contents*** window or the ***Message Record/Playback*** window will be presented (see Figure 69 and Figure 60), depending on whether the message is text- or voice-based. You can then view or edit the message (i.e., modify/re-record message text/contents) or play back the message, based on the displayed window.

3.6.2.3.6. Weather Message Correction

This submenu function allows you to correct (or "fix") erred AFOS weather messages. To perform the function, click the **Messages** menu and then select "Weather Message Correction". The ***Weather Message Correction*** window will then be presented (see Figure 71). To continue, perform the following steps:

a. Click the *Get Error File* button. The ***Select Directory*** window will then be presented (see Figure 72).

b. Select the desired search directory's radio button and click the *OK* button. (The Recovery Directory is where AFOS messages not slated for Synthetic Speech Override (SSO) are stored. The SSO Directory is where AFOS messages slated for SSO are stored.) The ***Error Weather Messages List*** window will then be presented (see Figure 73).

c. Select (via the mouse) the desired error message file in the Files subwindow and then click the *OK* button. The erred weather message attributes will then be copied into the ***Weather Message Correction*** window (see Figure 74), and any erred message attributes will appear in a highlighted state along with an associated pop-up error window containing an explanation of the error (as shown in Figure 74).

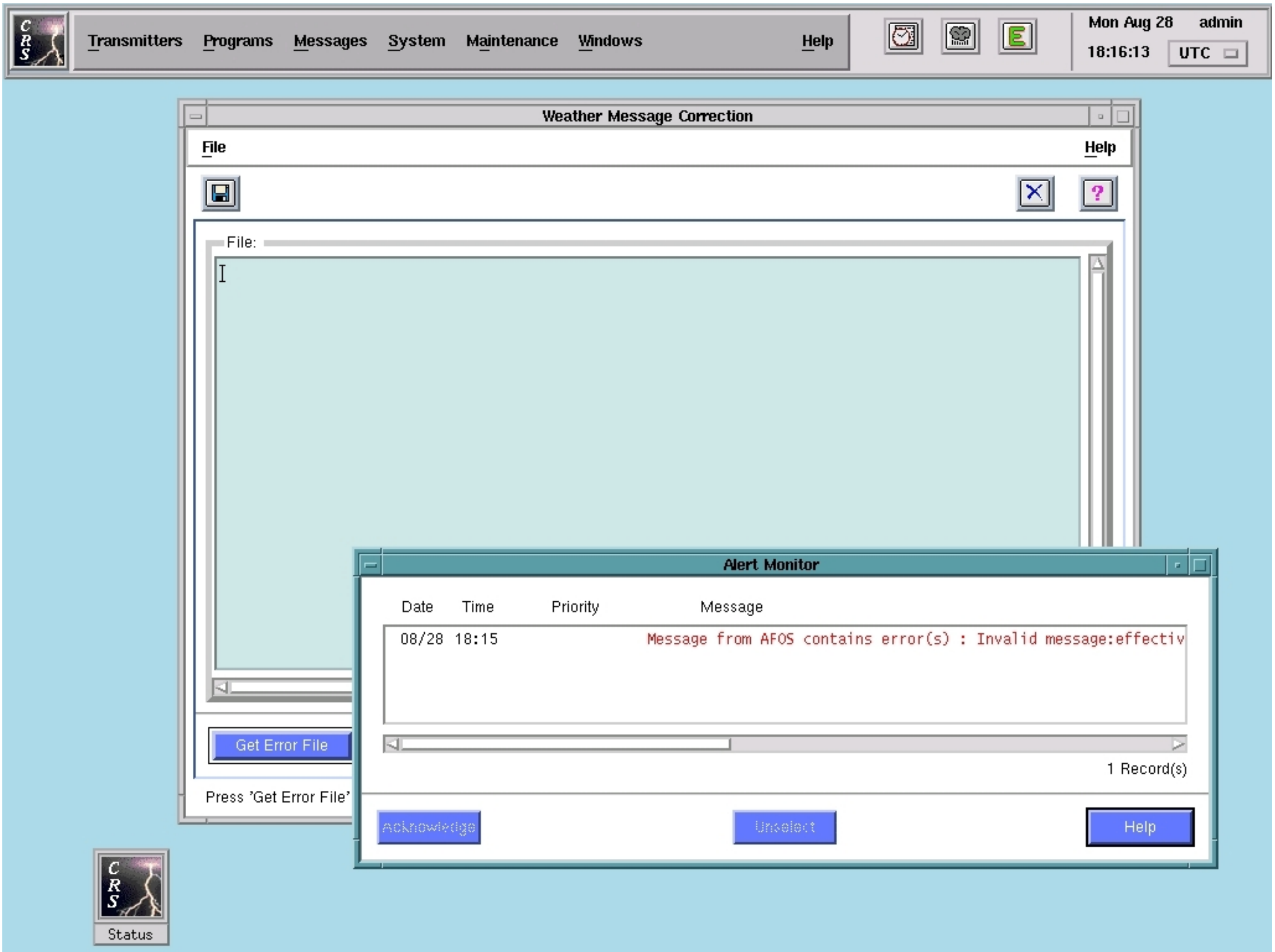
   Please **note** that you must select the same error message file name that was included along with the error message notification when it was queued to the ***Alert Monitor*** window (to alert you to the erred AFOS weather message). In this case, the file containing the erred message would be "R1101809319.AF" as shown in Figure 74.

d. Click the *OK* button in the pop-up error window and then fix the highlighted message attributes as required. If unsure as to the proper format for an AFOS message, click the *Show Format Help* button. The ***Weather Message Correction*** window will then be reformatted to include an additional subwindow containing the AFOS message specifications (see Figure 75).

e. Click the APPLY hotkey (in the hotkey menu bar). The changes will subsequently be saved, and if there are no other erred attributes you will receive confirmation to this effect along with the message ID[9] in the status display area. Otherwise, the next set of erred attributes

---

[9] *This message ID will enable you to retrieve the message (via the Weather Messages submenu option) should you decide later on that you want to view and/or edit the message's contents but in a much more user-friendly way.*

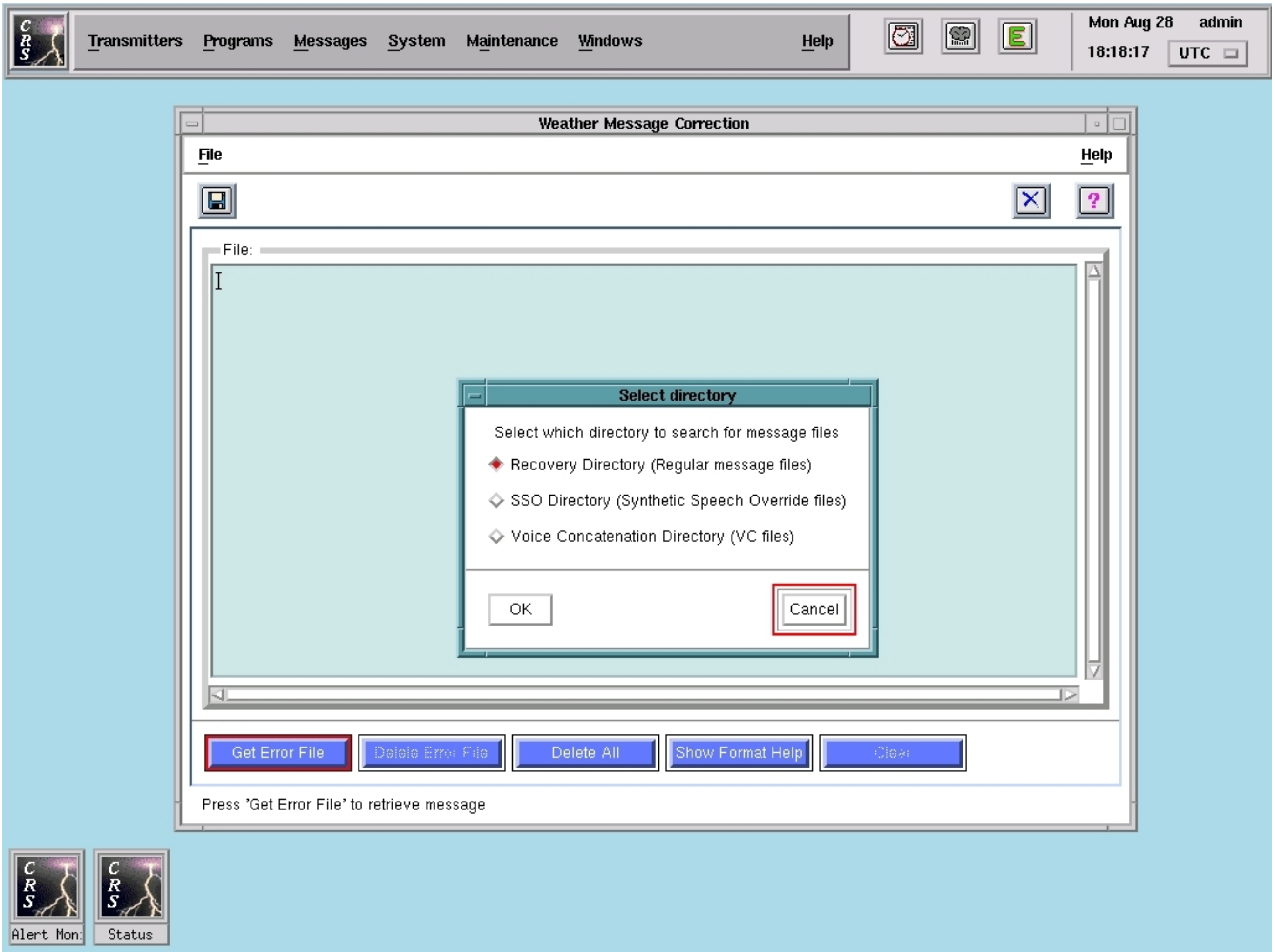

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:16:13
UTC
Weather Message Correction
File
Help
File:
Get Error File
Alert Monitor
Acknowledge
Unselect
Help
Status

Date	Time	Priority	Message
08/28	18:15		Message from AFOS contains error(s) : Invalid message:effectiv

1 Record(s)

Press ’Get Error File’

Figure 71. Weather Message Correction Window

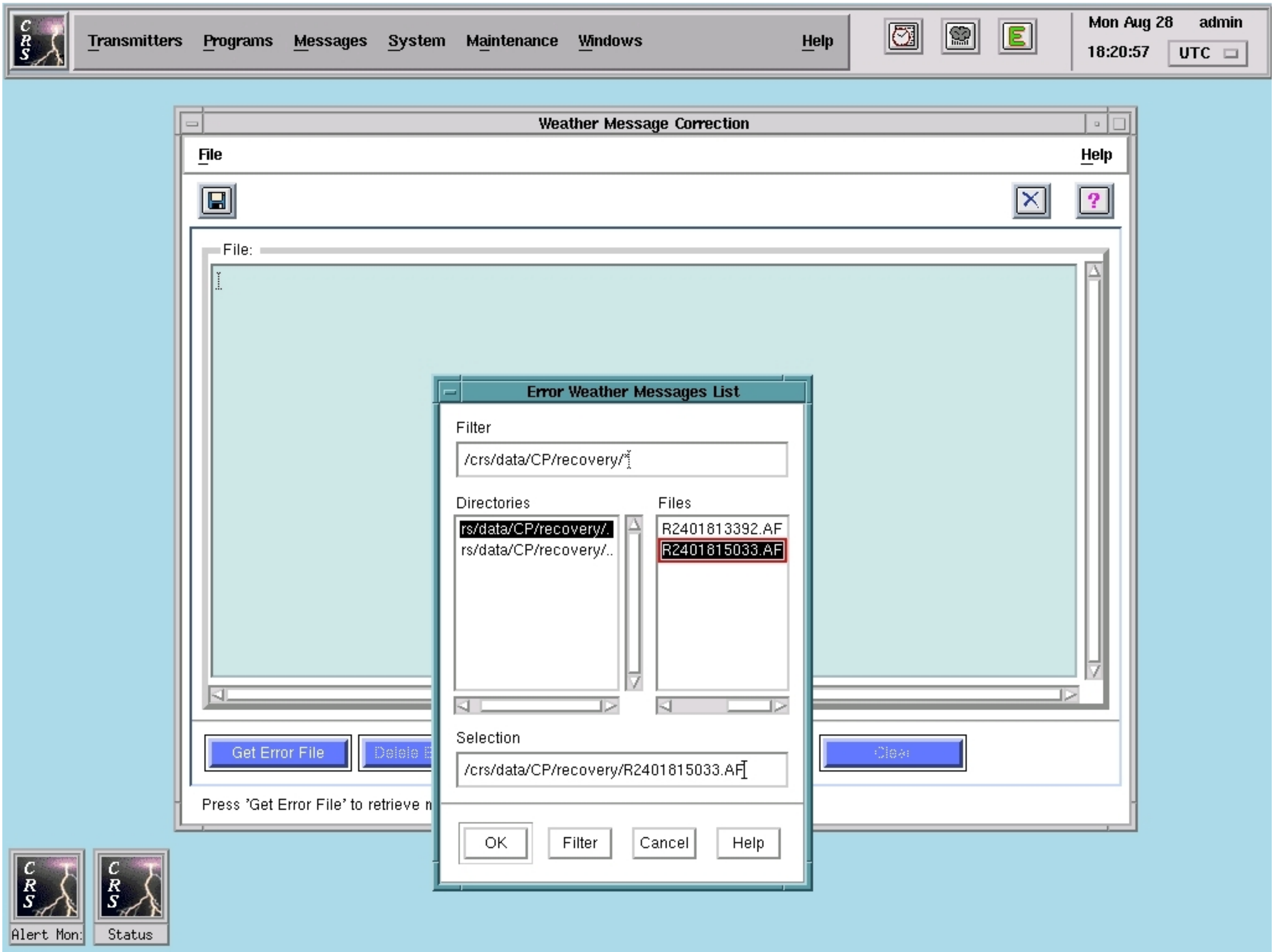

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:18:17
UTC
Weather Message Correction
File
Help
File:
Select directory
OK
Cancel
Get Error File
Delete Error File
Delete All
Show Format Help
Clear
Alert Mon:
Status

Select which directory to search for message files

- ● Recovery Directory (Regular message files)
- ○ SSO Directory (Synthetic Speech Override files)
- ○ Voice Concatenation Directory (VC files)

Press ’Get Error File’ to retrieve message

Figure 72. Select Directory Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:20:57
UTC
Weather Message Correction
File
Help
File:
Error Weather Messages List
Filter
Directories
Files
Selection
OK
Filter
Cancel
Help
Get Error File
Delete E
Clear
Alert Mon:
Status

Filter: /crs/data/CP/recovery/*

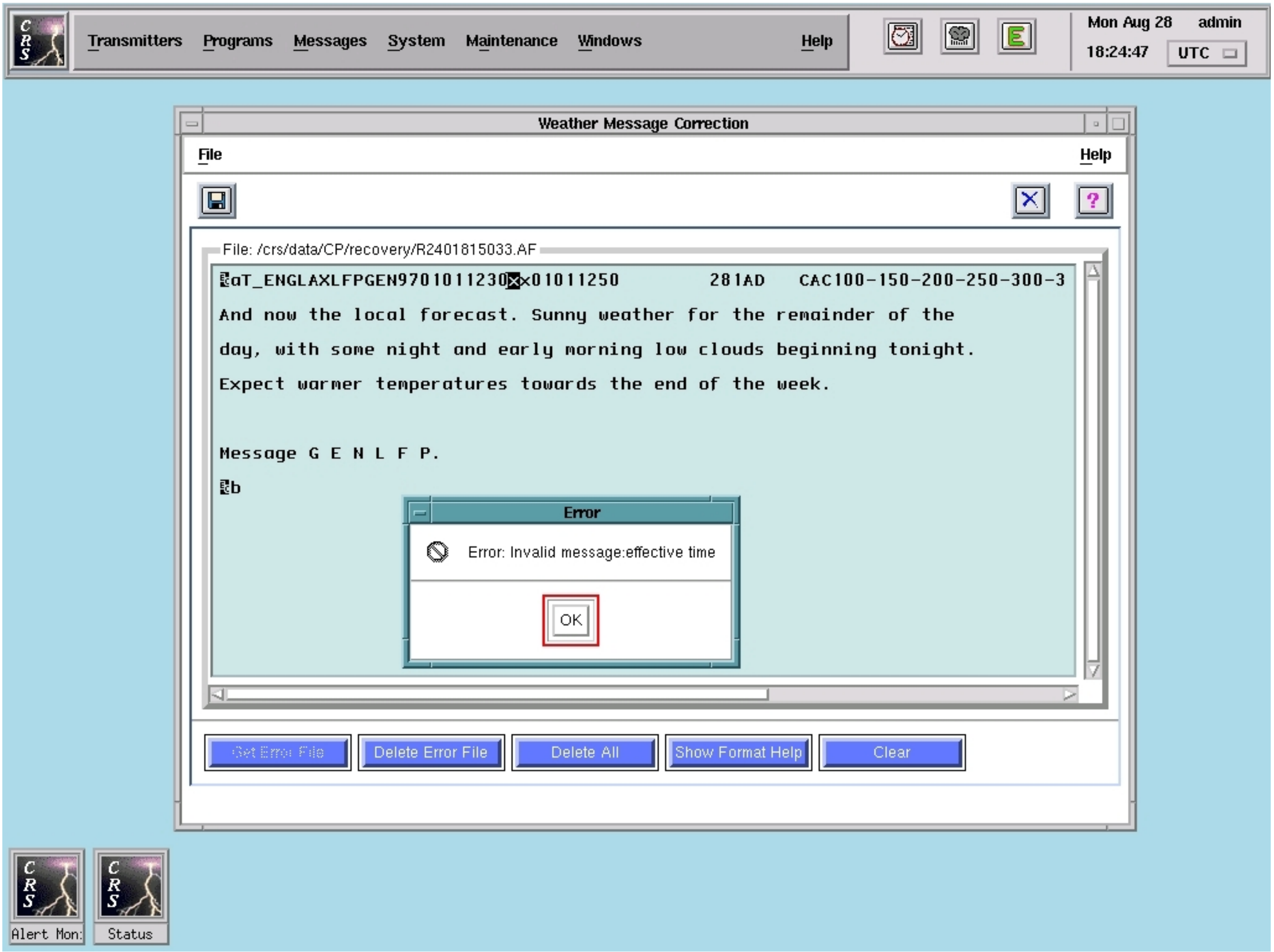
Directories:
- rs/data/CP/recovery/.
- rs/data/CP/recovery/..

Files:
- R2401813392.AF
- R2401815033.AF

Selection: /crs/data/CP/recovery/R2401815033.AF

Press ’Get Error File’ to retrieve m

Figure 73. Error Weather Messages List Window

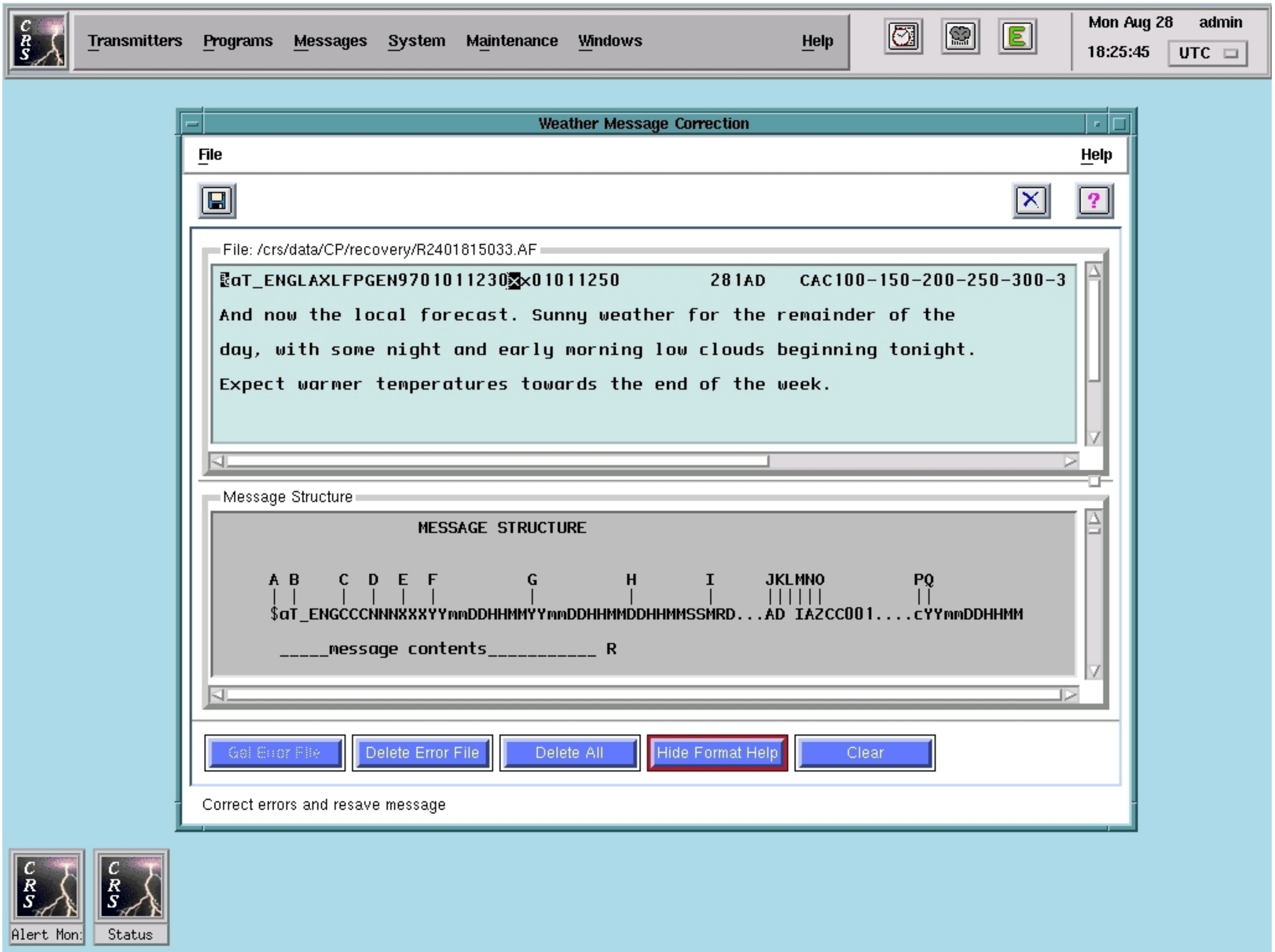

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:24:47
UTC
Weather Message Correction
File
Help
Error
OK
Get Error File
Delete Error File
Delete All
Show Format Help
Clear
Alert Mon:
Status

File: /crs/data/CP/recovery/R2401815033.AF

```
aT_ENGLAXLFPGEN970101123 0x01011250        281AD   CAC100-150-200-250-300-3
And now the local forecast. Sunny weather for the remainder of the
day, with some night and early morning low clouds beginning tonight.
Expect warmer temperatures towards the end of the week.


Message G E N L F P.
b
```

Error: Invalid message:effective time

Figure 74. Retrieved Error Weather Message Text


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:25:45
UTC
Weather Message Correction
File
Help
Get Error File
Delete Error File
Delete All
Hide Format Help
Clear
Alert Mon:
Status

File: /crs/data/CP/recovery/R2401815033.AF

```
$aT_ENGLAXLFPGEN9701011230xx01011250         281AD    CAC100-150-200-250-300-3
And now the local forecast. Sunny weather for the remainder of the
day, with some night and early morning low clouds beginning tonight.
Expect warmer temperatures towards the end of the week.
```

Message Structure

```
                    MESSAGE STRUCTURE

    A B    C  D  E  F         G         H       I     JKLMNO        PQ
    | |    |  |  |  |         |         |       |     ||||||        ||
    $aT_ENGCCCNNNXXXYYmmDDHHMMYYmmDDHHMMDDHHMMSSMRD...AD IAZCC001....cYYmmDDHHMM

     _____message contents___________ R
```

Correct errors and resave message

Figure 75. Weather Message Correction Window - Show Format Help Selected

will be displayed (or highlighted) along with another pop-up error notification, and you must repeat Step d. above and then click the APPLY hotkey (for this as well as any other subsequent highlighted message attributes).

Please **note** that the *Delete Error File* button is provided to allow you to delete the currently displayed error message file. The *Delete All* button, on the other hand, is provided to allow you to delete the currently displayed error message file as well as all other message files in the directory.

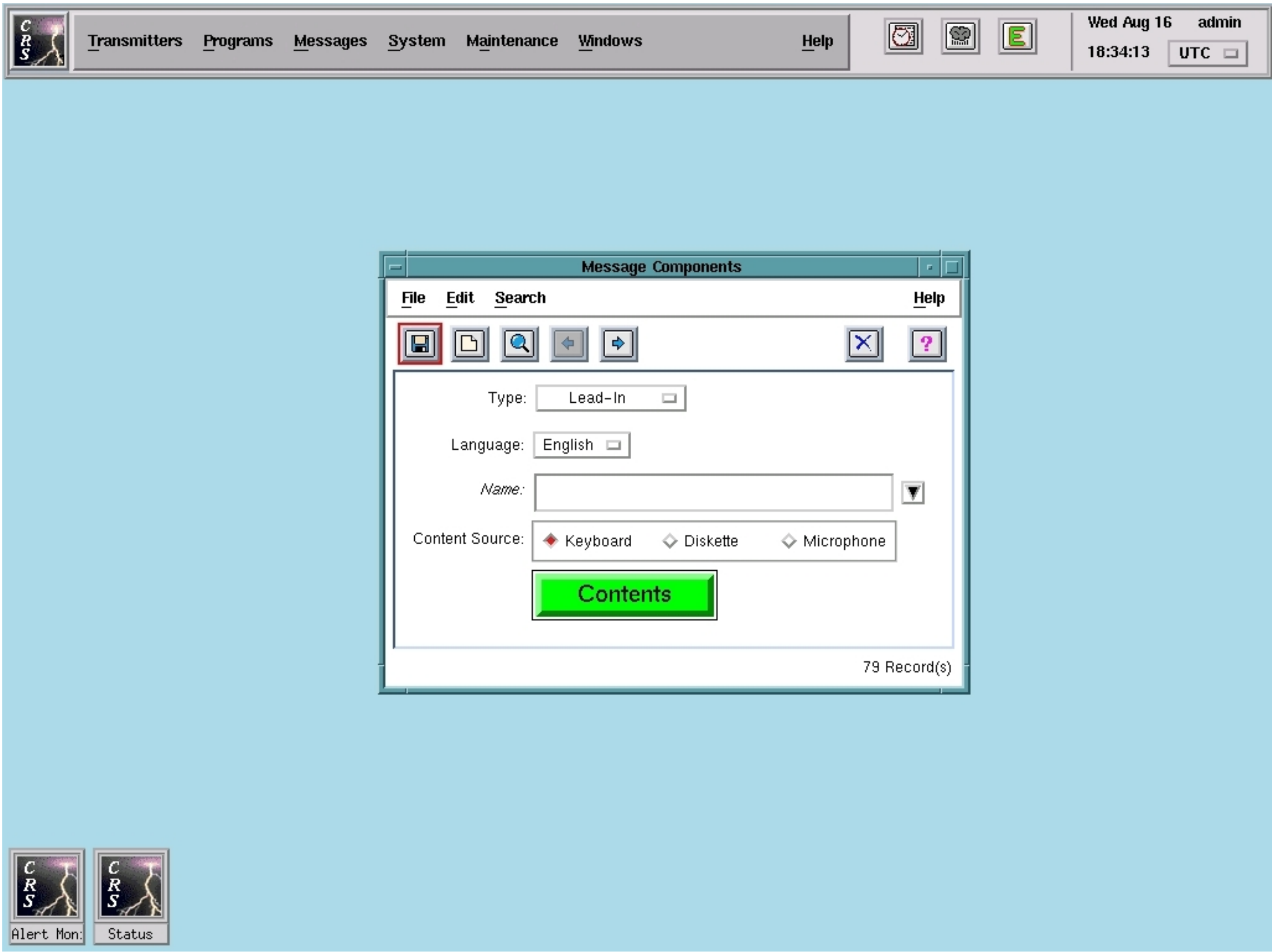
3.6.2.3.7. Message Components

This submenu option allows you to create, view, or edit message components. To perform the option, click the **Messages** menu and then select "Message Components". The ***Message Components*** window will then be presented (see Figure 76). To continue, perform "a." or "b." below depending on the desired operation.

a. Create Message Component. If your intent is to create a message component, then perform the following steps:

1. Click the CREATE hotkey (in the hotkey menu bar).
2. Specify the desired message component type (i.e., Lead-In, Call-to-Action, Interrupt, Keep Alive, Station ID, or Trailer) by clicking the option button to the right of the Type field and selecting the component from the option list. Lead-In is the default for the field.
3. Specify the desired language (i.e., English or Spanish) by clicking the option button to the right of the Language field and selecting the language from the option list. English is the default for the field.
4. Enter the message component name in the Name field. This field will accept up to 30 ASCII characters.
5. Create message component contents by performing one of the following depending on the desired message contents input source.
   - Keyboard-based Message Component. To create message component contents via the keyboard, perform the following substeps:
     - Select "Keyboard" in the Contents Source label and then click the *Contents* button. The ***Message Text Contents*** window will then be presented (see Figure 77).
     - Enter (via the keyboard) the desired message component text in the ***Message Text Contents*** window.

       Please **note** that you can enter special variables in some message components, which will be replaced with the appropriate message



Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
18:34:13
UTC
Message Components
File
Edit
Search
Help
Contents
79 Record(s)
Alert Mon:
Status

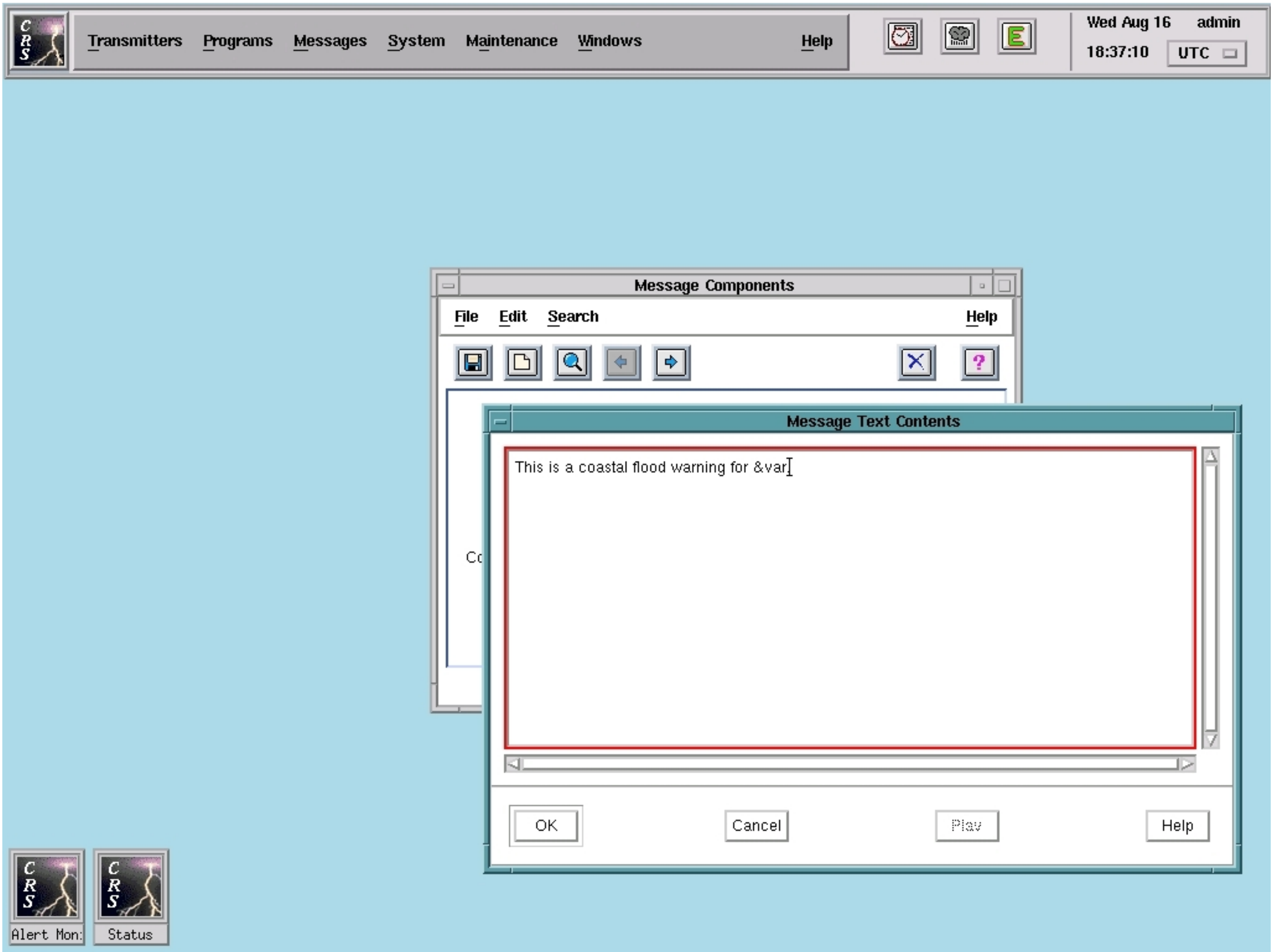
Type: Lead-In

Language: English

Name:

Content Source: ● Keyboard ○ Diskette ○ Microphone

Figure 76. Message Components Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
18:37:10
UTC
Message Components
File
Edit
Search
Help
Message Text Contents
OK
Cancel
Play
Help
Alert Mon:
Status

This is a coastal flood warning for &var

Figure 77. Message Text Contents Window

outputs during broadcast of these components. These variables include:

&what - inserts text into message component that was specified in the &what field of the ***Message Types*** window (see Figure 47). It can be used for Trailer components only.

&var - expands listening areas in the message component. It can be used for Lead-in and Trailer components.

&when - inserts message effective time in message component. It can be used for Trailer components only.

Please also **note** that when creating Spanish text, you can enter special Spanish language symbols (or characters) to elicit the proper pronunciation from DECtalk. To do this, merely type a Control-T followed by the alphabetical character followed by the accent character. For example, to enter the tilde-n in a word, type a Control-T followed by the letter "n" followed by the tilde ("~").

- Click the *OK* button. The message text will be inserted in the message component and you will be returned to the ***Message Components*** window.

- Diskette-based Message Component. To create message component contents via diskette, perform the following substeps:

  - Insert floppy diskette in drive mechanism.

  - Select "Diskette" in the Contents Source label and then click the *Contents* button. The ***Diskette*** window will then be presented (see Figure 75), displaying the file(s) contained on the diskette. (If the desired file is subordinated under a particular directory on the diskette, then double-click the directory (in the Directories subwindow) or highlight the directory and then click the *Filter* button. The files associated with the selected directory will then be displayed in the Files subwindow.)

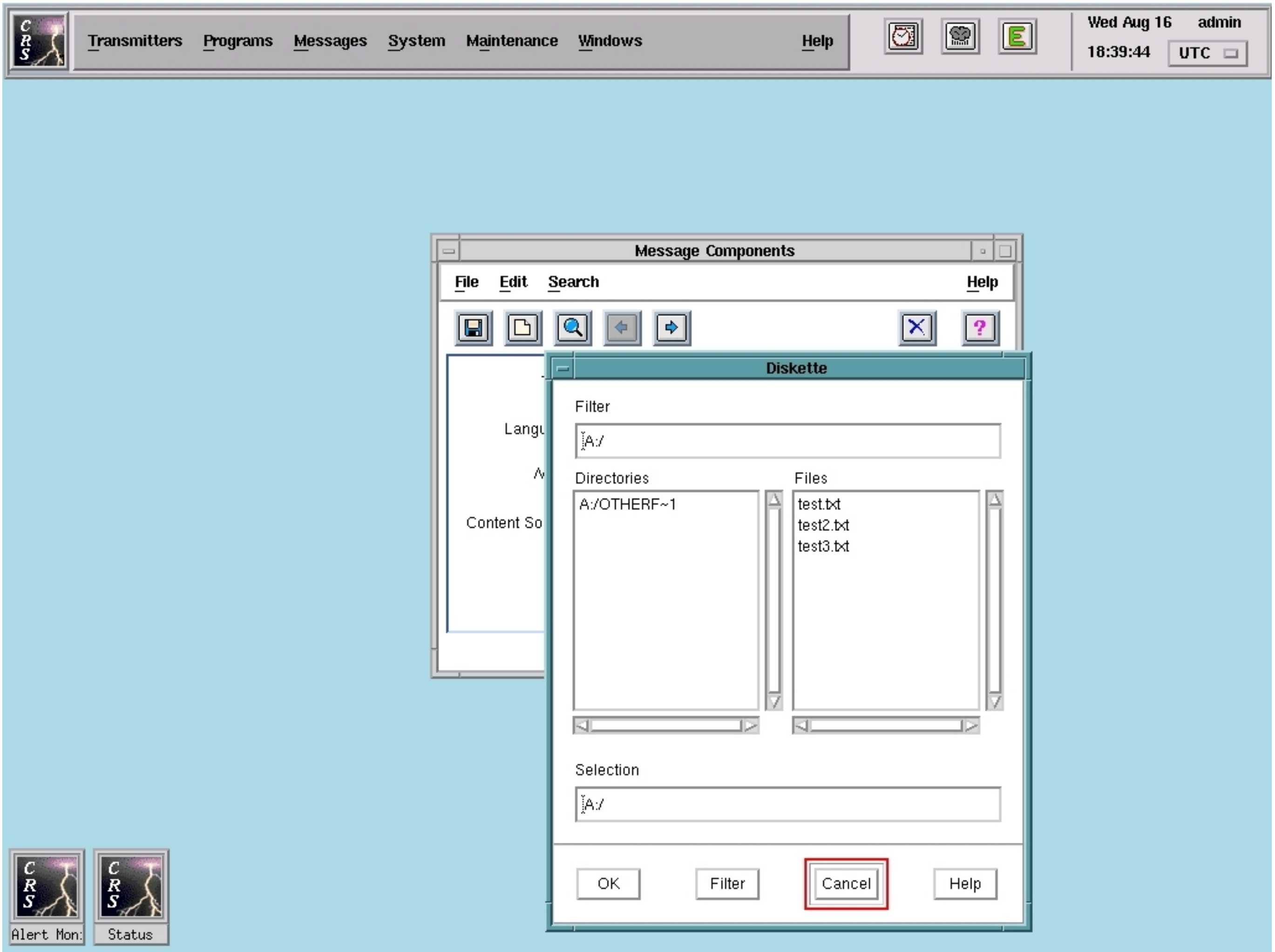

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
18:39:44
UTC
Message Components
File
Edit
Search
Help
Langu
Content So
Diskette
Filter
A:/
Directories
A:/OTHERF~1
Files
test.txt
test2.txt
test3.txt
Selection
A:/
OK
Filter
Cancel
Help
Alert Mon:
Status

Figure 78. Diskette Window

- Double-click the desired message file or highlight it and then click the *OK* button. The ***Message Text Contents*** window will then be presented (see Figure 77), displaying the message file text.

- Click the *OK* button (in the ***Message Text Contents*** window) upon reviewing/changing the message text, and the text will then be inserted in the message component and you will be returned to the ***Message Components*** window.

- Microphone-based Message Component. To create message component contents via microphone, perform the following substeps:

  - Select "Microphone" in the Contents Source label and then click the *Contents* button. The ***Message Record/Playback*** window will then be presented (see Figure 79).

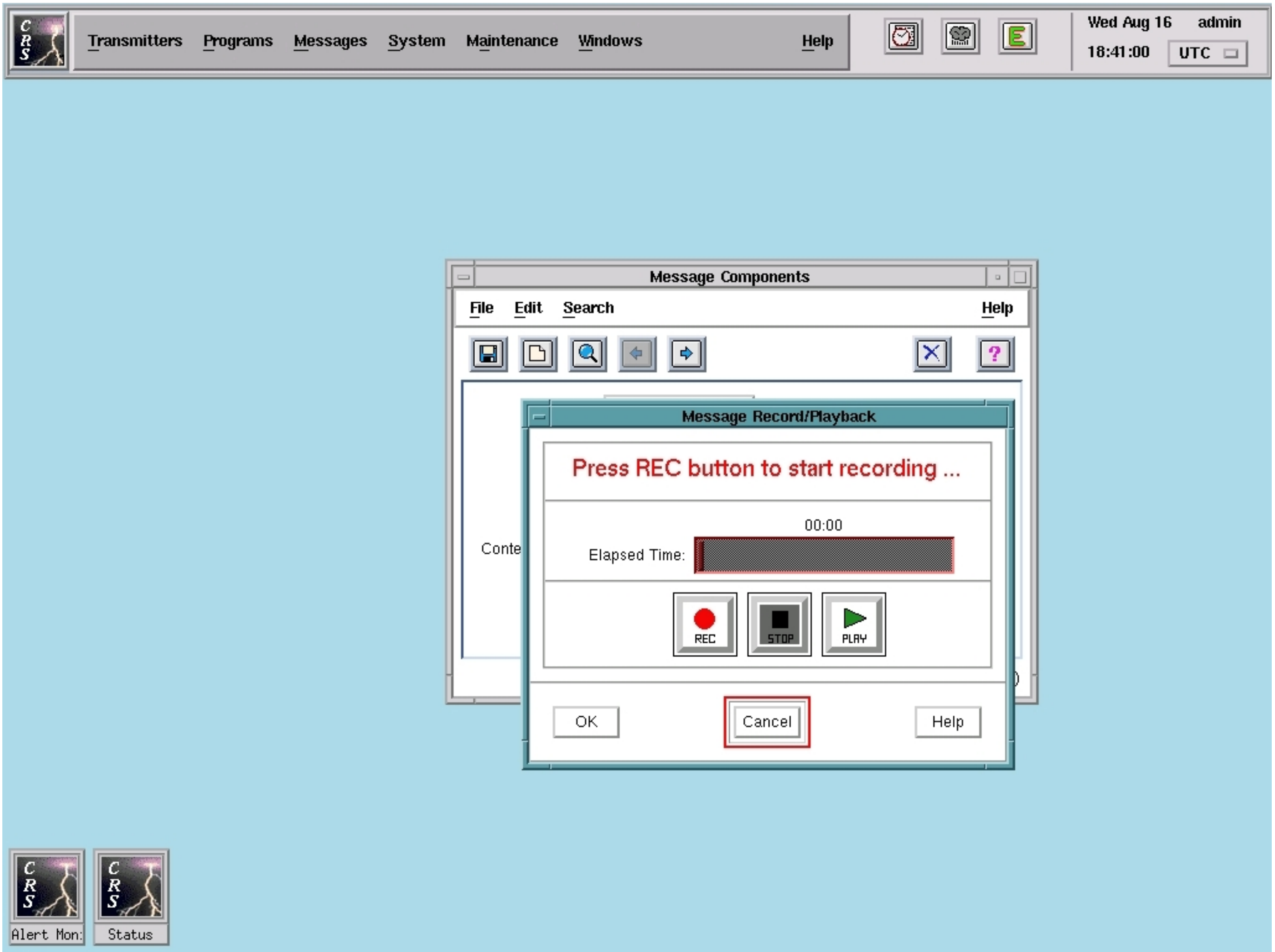
  - Record your message by first clicking the *REC* button. You will then be prompted to begin your recording, after which you can do so by speaking into the CRS headset/handset microphone. By default, you will have a maximum of 10 minutes of recording time. When you have 30 seconds of recording time left, the following message will be displayed: **Warning: 30 secs for recording**.

  - Click the *STOP* button upon completing your recording.

  - Click the *PLAY* button to play back the message.

  - If desired, re-record the message by performing the appropriate substeps above, and when satisfied with the message, click the *OK* button and you will be returned to the ***Message Components*** window. Otherwise, click the *OK* button directly.

6. Click the SAVE hotkey (in the hotkey menu bar). The message component will subsequently be saved, and you will receive confirmation to this effect in the status display area.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
18:41:00
UTC
Message Components
File
Edit
Search
Help
Conte
Message Record/Playback
Elapsed Time:
00:00
REC
STOP
PLAY
OK
Cancel
Help
Alert Mon:
Status

Press REC button to start recording ...

Figure 79. Message Record/Playback Window

b. View/Edit Message Component. If your intent is to view or edit a message component, then perform the following steps:

1. Specify the desired message component type (i.e., Keep Alive, Call-to-Action, Lead-In, Station ID, or Interrupt Announcement) by clicking the option button to the right of the Type field and selecting the type from the option list.

2. Specify the desired language (i.e., English or Spanish) by clicking the option button to the right of the Language field and selecting the language from the option list.

3. Click the list button to the right of the message component Name field and select the desired message component from the pick-list by double-clicking it. The message component will be transferred to the message component Name field.

4. View/edit the selected message component. If editing the message component, follow Steps 5 and 6 described under "a." above, since the procedures for editing message components are essentially the same as those for creating message components. Please **note** that when viewing or editing message components, you can view/play back the contents by clicking the *Contents* button. Upon doing this, either the ***Message Text Contents*** window or the ***Message Record/Playback*** window will be presented (see Figure 77 and Figure 79), depending on whether the message is text- or voice-based. You can then view or edit (i.e., modify the text or re-record the message contents) via the respective window.

3.6.2.3.8. Emergency Override

This submenu option allows you to perform an emergency override broadcast. To perform the option, click the **Messages** menu and then select "Emergency Override". The ***Emergency Override*** window will then be presented (see Figure 80). To continue, perform "a." or "b." below depending on whether you want to use an operator created message or an operator retrieved message for your broadcast.

a. Operator Created Message. If your intent is to create a new emergency override message, then perform the following steps:

1. Accept the default "Create Emergency Override" in the Function field.

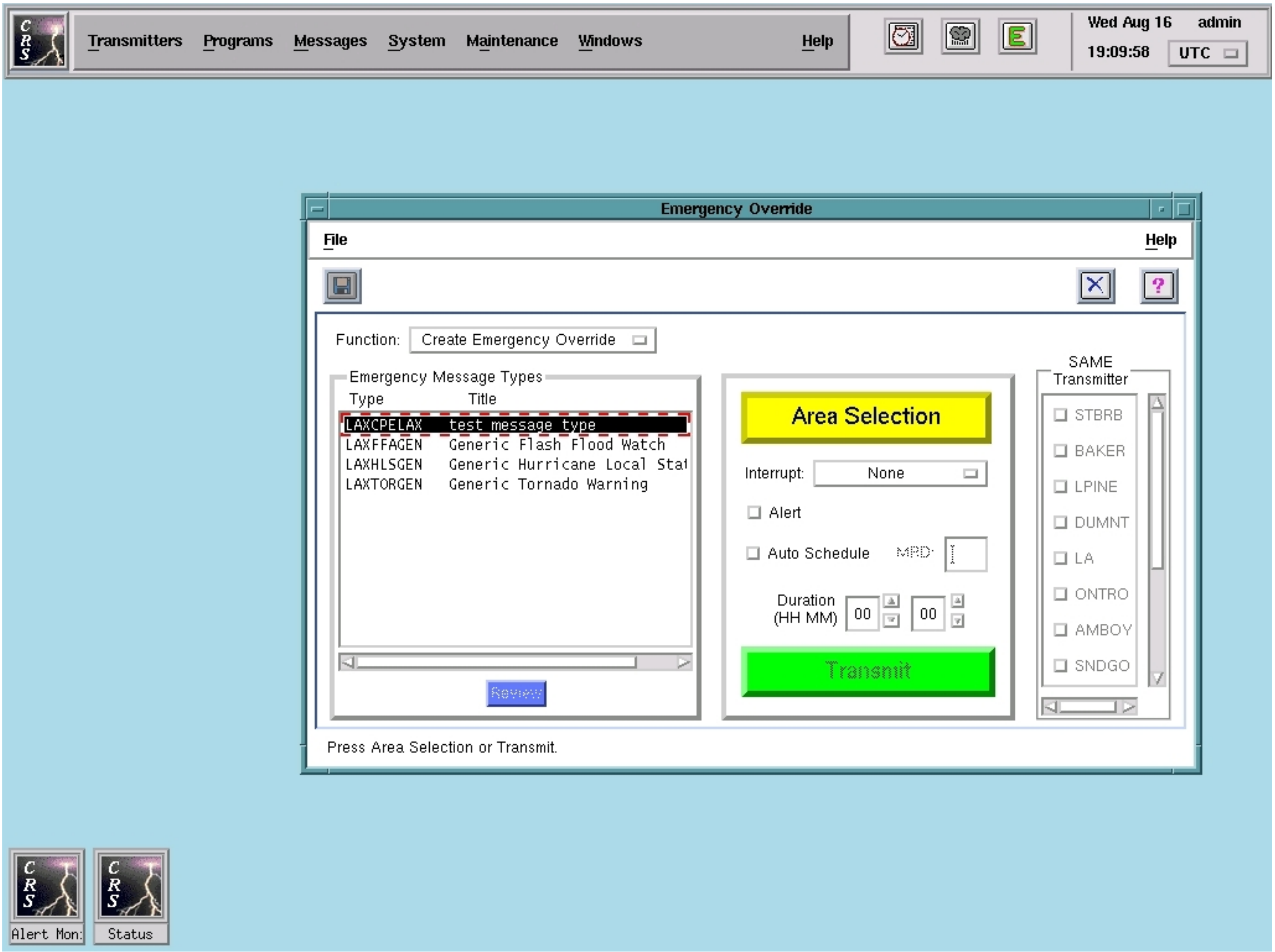
2. Select a message type from the message type display list (directly under the Function field. This display list will contain only those message types with the emergency override flag set.) The Interrupt and Alert tone fields will default to those values defined for the selected message type.
   Note: If the Message data has the Listening Area/Zone Override option set, the ***Warning Message Window*** will be displayed (see Figure 91) which indicates that *the software will use the default Listening Areas that are stored in the CRS database as part of the Message Type attributes,* and the *Area Selection* button is greyed out, preventing the operator from modifying the *Listening Areas*.

3. Change the Interrupt and/or Alert tone field values, if desired, via the option button and/or toggle associated with the fields.

4. Select the Auto Schedule toggle if you want your emergency override message to be automatically scheduled and saved following its broadcast. Also enter a Message Reference Descriptor (MRD) in the MRD field (in the range 0 to 999), if desired. If you forget to select the Auto Schedule toggle, you will still have the option to schedule the message via the ***Emergency Override - Schedule/Save*** window (see Figure 86), which will be presented upon clicking the *Exit* button in the ***Emergency Override - Broadcast*** window (see Figure 82).

   Please **note**, however, that any emergency message scheduled into a broadcast program (via the Auto Schedule option) must be previously defined as a trigger message; otherwise, there is no guarantee that the message will be rebroadcast. Further, if the message is a part of a current program but isn't currently defined as a trigger, then you will have to access the suite containing the message (by means of the ***Broadcast Program*** window--see

Figure 36) and then bring up the message and specify it as a trigger. If the message isn't a part of any current program, then you will have to assign the message to a suite (via the ***Broadcast Suites*** window--see Figure 44), go to the ***Broadcast Program*** window, assign the suite (containing the message) to the current program, bring up the message, and then define the message as a trigger.)


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
19:09:58
UTC
Emergency Override
File
Help
Area Selection
☐ Alert
☐ Auto Schedule
MRD:
Transmit
Review
SAME Transmitter
☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
☐ SNDGO
Alert Mon:
Status

Function: Create Emergency Override

Emergency Message Types

Type	Title
LAXCPELAX	test message type
LAXFFAGEN	Generic Flash Flood Watch
LAXHLSGEN	Generic Hurricane Local Sta
LAXTORGEN	Generic Tornado Warning

Interrupt: None

Duration (HH MM) 00 00

Press Area Selection or Transmit.

Figure 80. Emergency Override Window

5. Specify desired listening areas for the message type by performing the following substeps. Otherwise, if you want to use those listening areas currently defined for the selected message type, then go to the next step (i.e., Step 6).

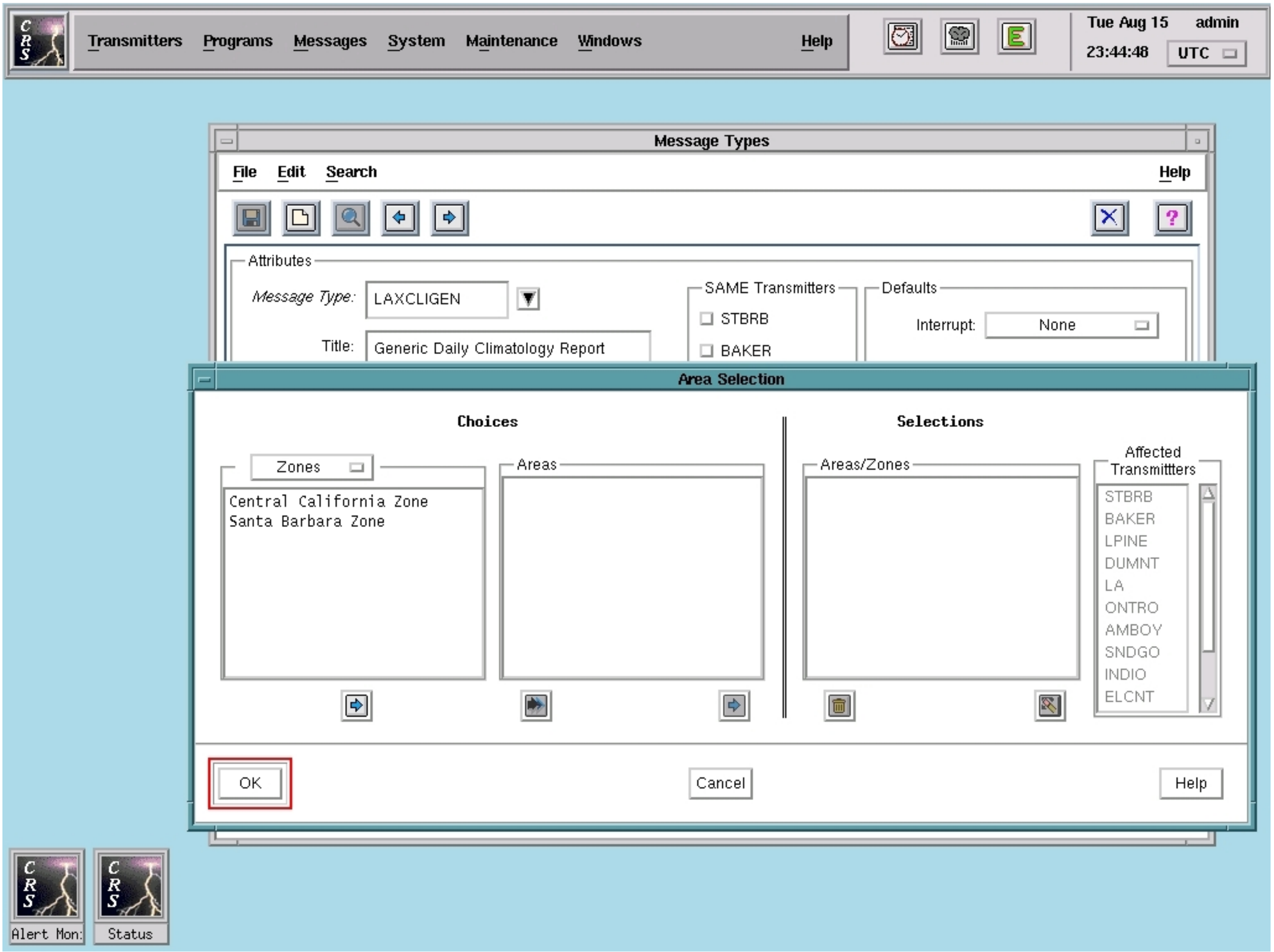
   - Click the *Area Selection* button. The ***Area Selection*** window will then be presented (see Figure 81), displaying four subwindows. (You will use the first two subwindows to access, display, and then copy desired listening areas into the third (or Areas/Zones) subwindow.)

   - Select the desired listening area type (i.e., Zones, Transmitters, or All Areas) by clicking the option button in the top-left (directly above the first subwindow) and then picking the option from the list. (Zone is the default for the field.) The first subwindow will update to reflect all listening areas for the type selected. If you selected Zones or Transmitters, the subwindow will display all the zones defined in or all the transmitters configured for the system, respectively. If you selected All Areas, the subwindow will remain blank, and the Areas subwindow will update to reflect all areas (i.e., counties and cities) defined in the system.

   - Click the desired listening area type in the first subwindow (i.e., if you selected Zones or Transmitters). The Areas subwindow (or second subwindow) will update to reflect those areas previously specified for the listening area type via the Listening Area submenu (see paragraph 3.6.2.1.2).

   - Transfer desired areas (from the Areas subwindow) into the Areas/Zones (or third) subwindow by highlighting them and then clicking the single right arrow button. The highlighted entries will then be copied into the Areas/Zones subwindow. As an alternative, copy all of the areas (from the Areas subwindow) into the Areas/Zones subwindow by clicking the double right arrow button. As another alternative, if you want to copy an entire Zone into the Areas/Zones subwindow, highlight the zone in the first subwindow and then click the single right arrow button (directly under the first subwindow).

     Upon transferring areas into the Areas/Zones subwindow, the Affected Transmitters (or fourth) subwindow will update to reflect those


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:44:48
UTC
Message Types
File
Edit
Search
Help
Attributes
SAME Transmitters
☐ STBRB
☐ BAKER
Defaults
Area Selection
Choices
Selections
Zones
Areas
Areas/Zones
Affected Transmittters
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
OK
Cancel
Help
Alert Mon:
Status

Message Type: LAXCLIGEN

Title: Generic Daily Climatology Report

Interrupt: None

Central California Zone
Santa Barbara Zone

Figure 81. Area Selection Window

transmitters assigned to the transferred areas (again, as defined via the Listening Areas submenu). Affected transmitters will be shaded dark, whereas unaffected transmitters will be shaded light.

- Click the *OK* button and you will be returned to the ***Emergency Override*** window.

6. Specify the duration for the emergency override broadcast by using the arrow buttons to select the desired values (i.e., 00 to 06 for "HH" or hours and 00 to 59 for "MM" or minutes).

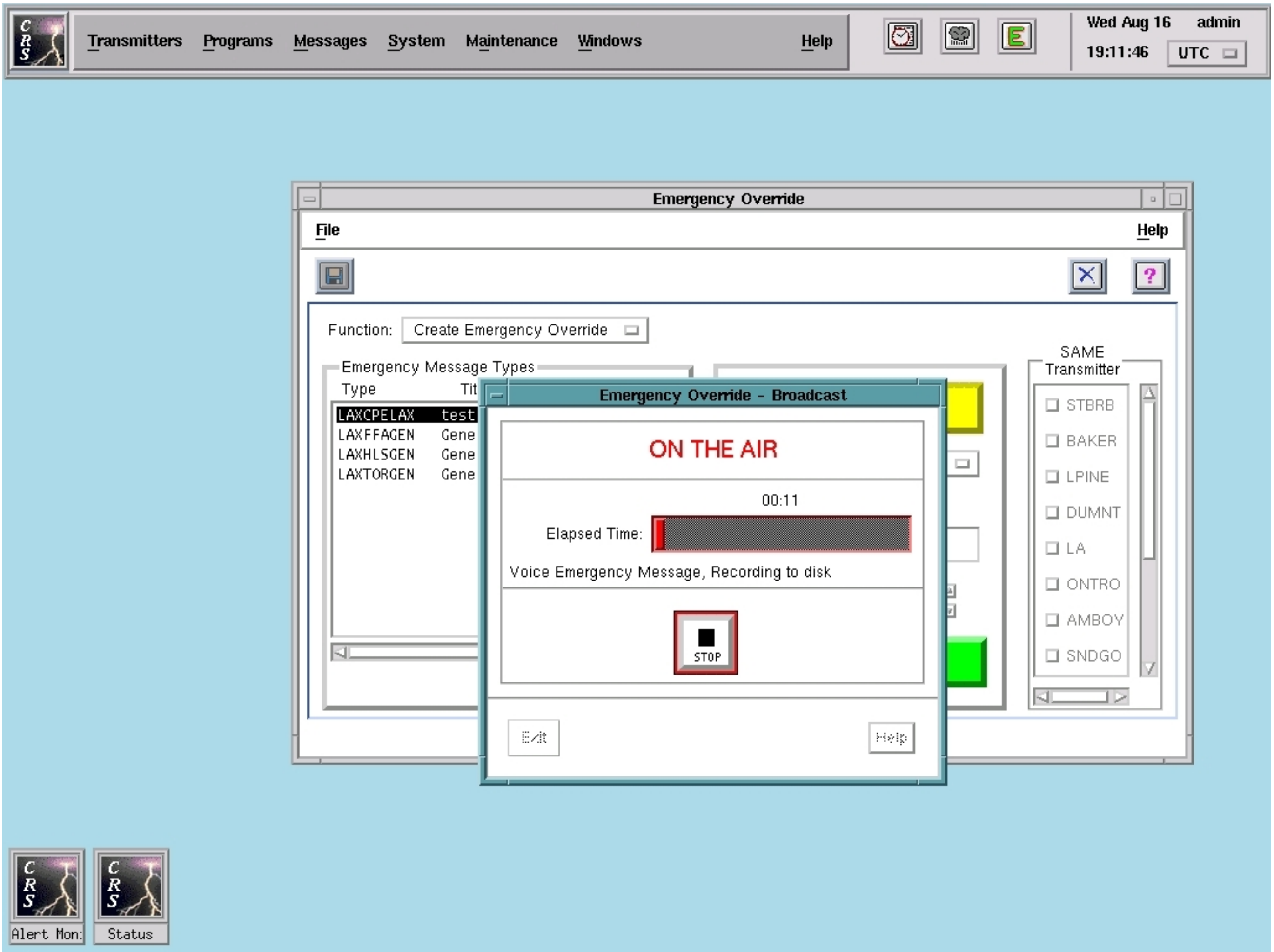
7. Override SAME transmitters, if desired, or use the defaults.(Default settings will reflect those previously defined for the selected message type.) To change the setting, click the transmitter toggle to select or deselect the transmitter.

8. Click the *Transmit* button. The ***Emergency Override - Broadcast*** window will then be displayed (see Figure 79), after which you will be prompted to begin your broadcast and can do so by means of the CRS headset/handset microphone.
   Note: If the Tone Validation option has been selected via *Site Configuration Window* (Maintenance->Site Configuration->Interface), the ***Warning Message*** will be displayed (see Figure 90) which indicates that *SAME and/or Alert* tones have been selected.

b. ~~Operator Retrieved Message. If your intent is to retrieve an existing message in order to broadcast it as an emergency override message, then perform the following steps:~~

~~1. Select either the Retrieve Emergency Override option, a specific message category (i.e., Retrieve Warnings, Retrieve Watches, Retrieve Advisories, Retrieve Forecasts, Retrieve Outlooks, Retrieve Observations, Retrieve Others), or the Retrieve from Diskette option by clicking the option button in the message Function field and then selecting the item from the option list. (For the Retrieve from Diskette option, make sure you insert your diskette prior to selecting the option.) Then, perform one of the following depending on the option chosen. (Please~~ **note** ~~that the messages displayed upon selecting the Retrieve Emergency Override option will include~~ only ~~those messages of the type whose emergency~~ override ~~flags have been set, whereas specific message categories will include all messages in the system representing these various categories, regardless of whether their emergency override flags have been set.)~~

Note: *Retrieve Emergency Override options are non-operational and no longer available* (see Figure 92).


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
19:11:46
UTC
Emergency Override
File
Help
Emergency Message Types
Type
Tit
SAME Transmitter
☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
☐ SNDGO
Emergency Override - Broadcast
Elapsed Time:
STOP
Exit
Help
Alert Mon:
Status

Function: Create Emergency Override

LAXCPELAX test
LAXFFAGEN Gene
LAXHLSGEN Gene
LAXTORGEN Gene

ON THE AIR

00:11

Voice Emergency Message, Recording to disk

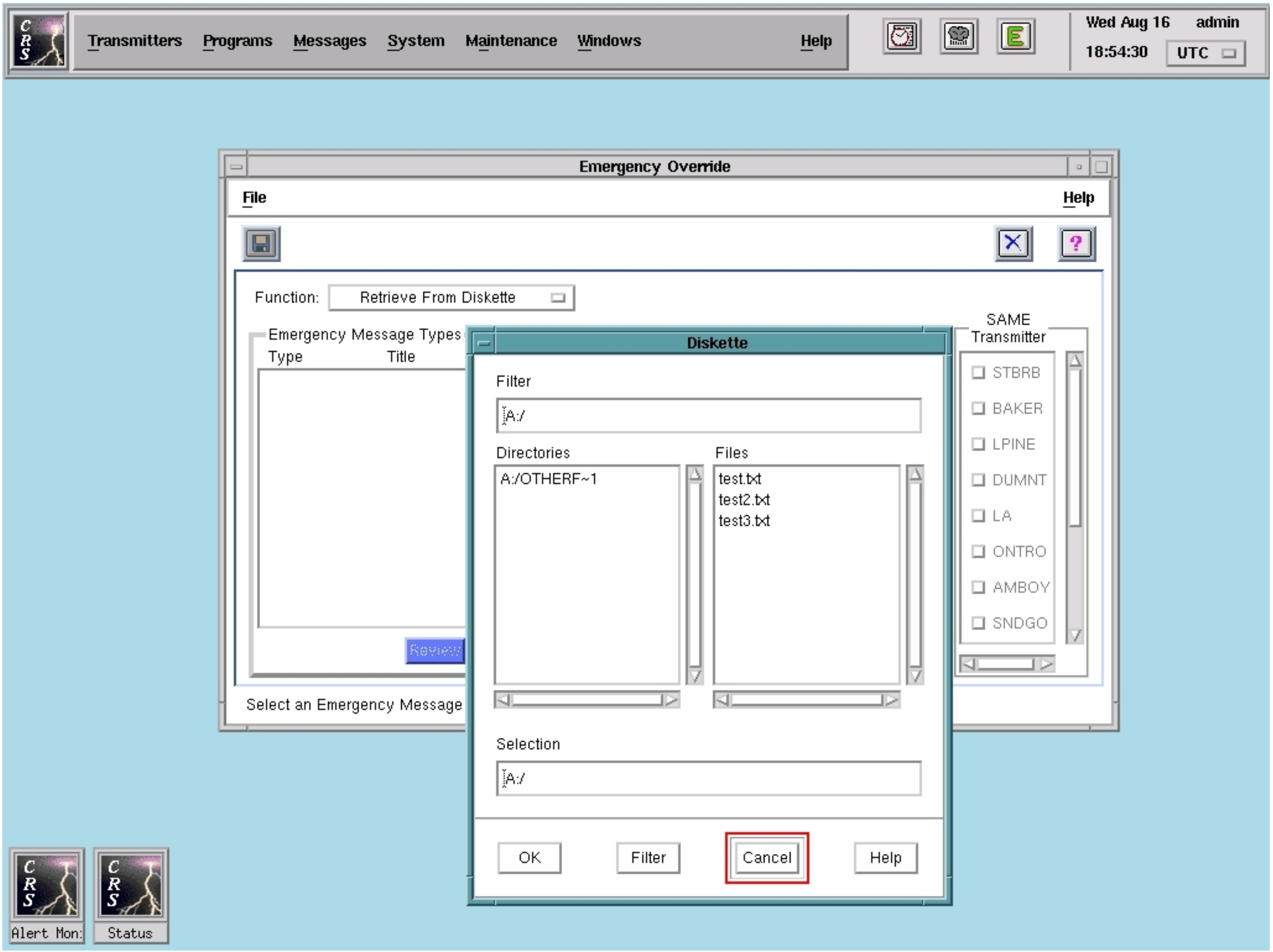
Figure 82. Emergency Override - Broadcast Window

- ~~Retrieve Emergency Override Option or a Specific Message Category. If you chose either of these options, you can continue by performing the following substeps:~~
    - ~~Select the desired message from the message type list (directly under the option menu).~~
    - ~~Go to Step 2.~~
- ~~Retrieve from Diskette. If you chose this option, you can continue by performing the following substeps:~~
    - ~~Double-click the desired message file in the Files subwindow of the~~ ~~***Diskette***~~ ~~window (which will be displayed upon selecting the Retrieve from Diskette option--see Figure 80), or highlight the file and then click the~~ ~~*OK*~~ ~~button. (If the desired file is subordinated under a particular directory on the diskette, then double-click the directory (in the Directories subwindow) or highlight the directory and then click the~~ ~~*Filter*~~ ~~button. The file(s) associated with the selected directory will then be displayed, and you can then retrieve the desired file by double-clicking it or by highlighting it and then clicking the~~ ~~*OK*~~ ~~button.) The message file contents will then be validated and inserted in the emergency override message, after which you will be returned to the~~ ~~***Emergency Override***~~ ~~window.~~
    - ~~Go to Step 2.~~

~~2. Review the message, if desired, by clicking the~~ ~~*Review*~~ ~~button. If the message is text based, then the~~ ~~***Message Text Contents***~~ ~~window will be presented (see Figure 84), allowing you to view the message contents; if it's voice based, then the~~ ~~***Message Record/Playback***~~ ~~window will be presented (see Figure 85), allowing you to play back the message.~~

~~3. Perform Steps 3 through 7 above (under Operator Created Message).~~

~~4. Click the~~ ~~*Transmit*~~ ~~button. The~~ ~~***Emergency Override - Broadcast***~~ ~~window will then be displayed (see Figure 82), and the emergency override message will subsequently be broadcast.~~


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
18:54:30
UTC
Emergency Override
File
Help
Emergency Message Types
Type
Title
Review
SAME Transmitter
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
Diskette
OK
Filter
Cancel
Help
Alert Mon:
Status

Function: Retrieve From Diskette

Select an Emergency Message

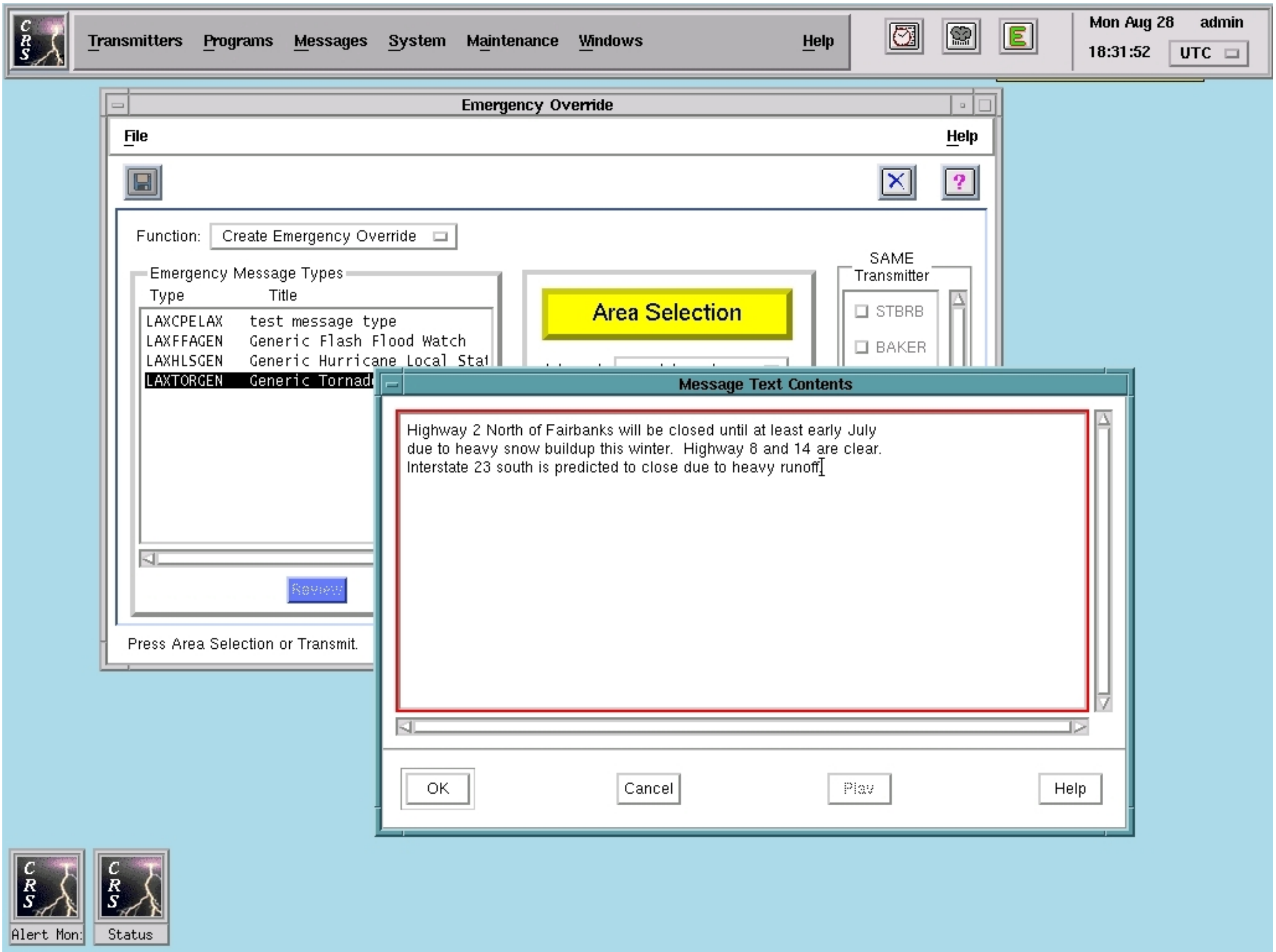
Filter: A:/

Directories: A:/OTHERF~1

Files:
test.txt
test2.txt
test3.txt

Selection: A:/

Figure 83. Diskette Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:31:52
UTC
Emergency Override
File
Help
Area Selection
SAME Transmitter
☐ STBRB
☐ BAKER
Review
Message Text Contents
OK
Cancel
Play
Help
Alert Mon:
Status

Function: Create Emergency Override

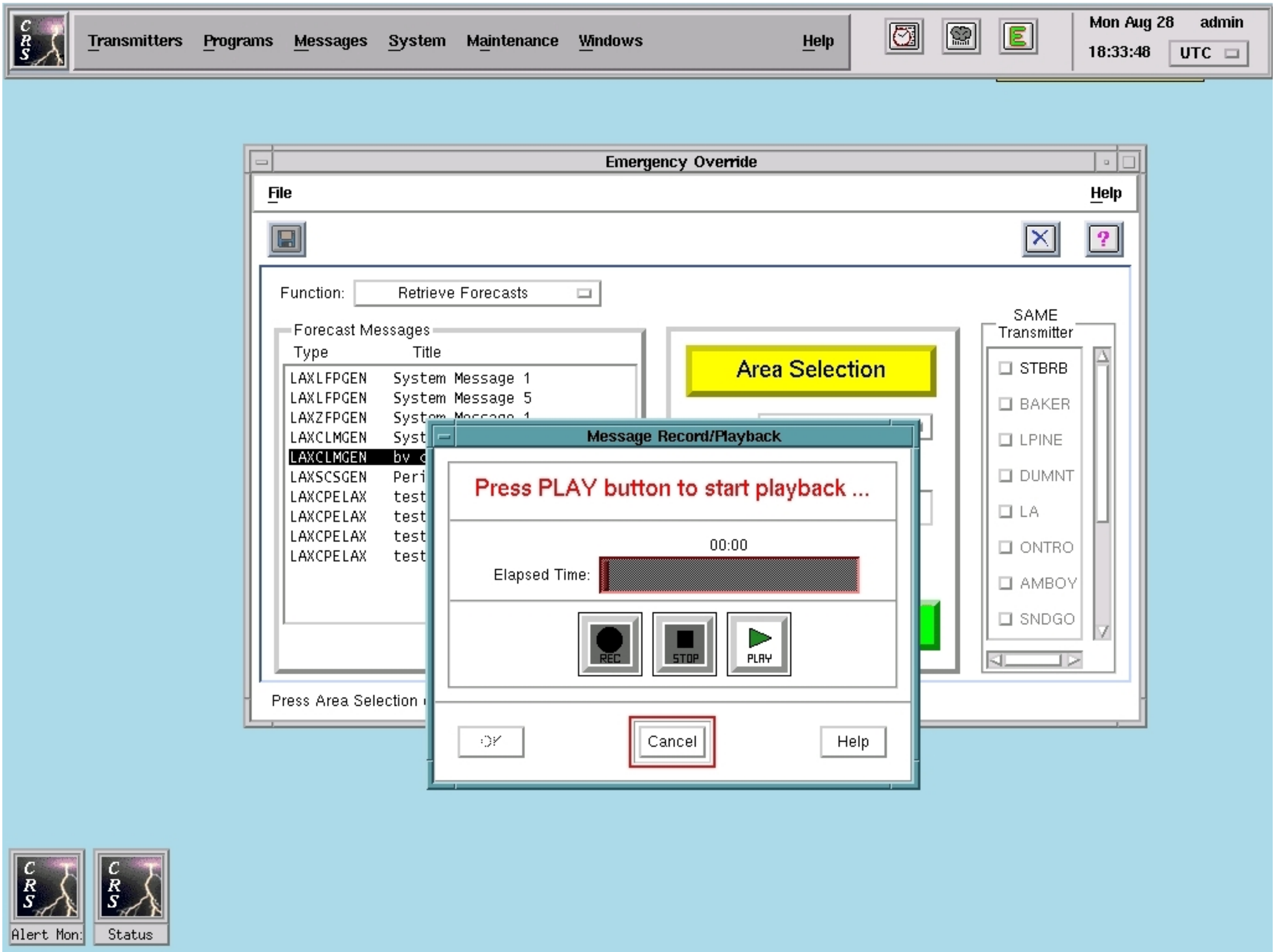
Emergency Message Types

Type	Title
LAXCPELAX	test message type
LAXFFAGEN	Generic Flash Flood Watch
LAXHLSGEN	Generic Hurricane Local Stat
LAXTORGEN	Generic Tornad

Highway 2 North of Fairbanks will be closed until at least early July due to heavy snow buildup this winter. Highway 8 and 14 are clear. Interstate 23 south is predicted to close due to heavy runoff

Press Area Selection or Transmit.

Figure 84. Message Text Contents Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:33:48
UTC
Emergency Override
File
Help
Area Selection
SAME
Transmitter
☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
☐ SNDGO
Message Record/Playback
REC
STOP
PLAY
OK
Cancel
Help
Alert Mon:
Status

Function: Retrieve Forecasts

Forecast Messages

Type	Title
LAXLFPGEN	System Message 1
LAXLFPGEN	System Message 5
LAXZFPGEN	System Message 1
LAXCLMGEN	Syst
LAXCLMGEN	bv
LAXSCSGEN	Peri
LAXCPELAX	test
LAXCPELAX	test
LAXCPELAX	test
LAXCPELAX	test

Press PLAY button to start playback ...

Elapsed Time: 00:00

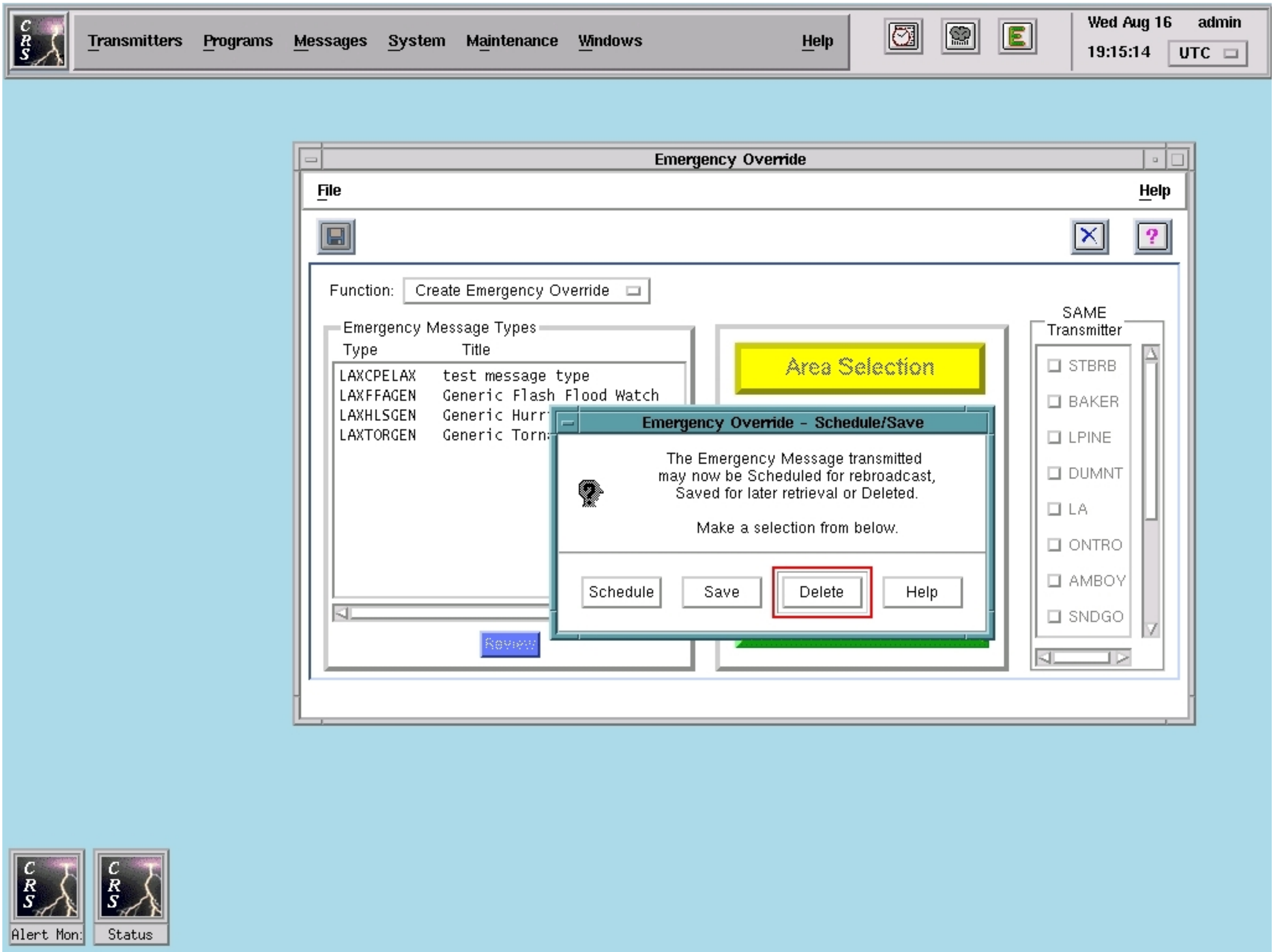
Press Area Selection

Figure 85. Message Record/Playback Window

After broadcasting an emergency override message, you will have the option to schedule, save, or delete the message, regardless of whether the message is operator created or operator retrieved. (Although in the case of an operator created message, this would be true only if you didn't select the Auto Schedule toggle, as explained in Step 4 under "a." above.) To do this, merely click the *Exit* button (in the ***Emergency Override - Broadcast*** window). The ***Emergency Override - Schedule/Save*** window will then be presented (see Figure 86). To continue, perform one of the following depending on the desired operation.

a. Schedule Emergency Override Message. To schedule an emergency override message into a CRS broadcast program for later rebroadcast, perform the following steps: (Again, please **note**, as stated above, that any emergency message scheduled into a broadcast program must be previously defined as a trigger message; otherwise, there is no guarantee that the message will be rebroadcast. Further, if the message is a part of a current program but isn't currently defined as a trigger, then you will have to access the suite containing the message (by means of the ***Broadcast Program*** window--see Figure 36) and then bring up the message and specify it as a trigger. If the message isn't a part of any current program, then you will have to assign the message to a suite (via the ***Broadcast Suites*** window--see Figure 44), go to the ***Broadcast Program*** window, assign the suite (containing the message) to the current program, bring up the message, and then define the message as a trigger.)

1. Click the *Schedule* button (in the ***Emergency Override - Schedule/Save*** window). The ***Emergency Override - Message Schedule*** window will then be presented (see Figure 87), displaying those parameters (i.e., Language, Designation, Warning, Emergency Override, and Defaults) associated with the selected message type. Please **note** that the Creation Date/Time and Effective Date/Time fields will default to the current date/time, and the Expiration Date/Time will be computed using the Effective Date/Time value and the Duration value specified for the selected message type. Also **note** that if you change the Effective Date/Time value from that of the default, the Expiration Date/Time field will not update. Thus, if you want to change the Expiration Date/Time value, you will need to enter the new value in the field.



Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
19:15:14
UTC
Emergency Override
File
Help
Area Selection
SAME Transmitter
☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
☐ SNDGO
Review
Emergency Override - Schedule/Save
Schedule
Save
Delete
Help
Alert Mon:
Status

Function: Create Emergency Override

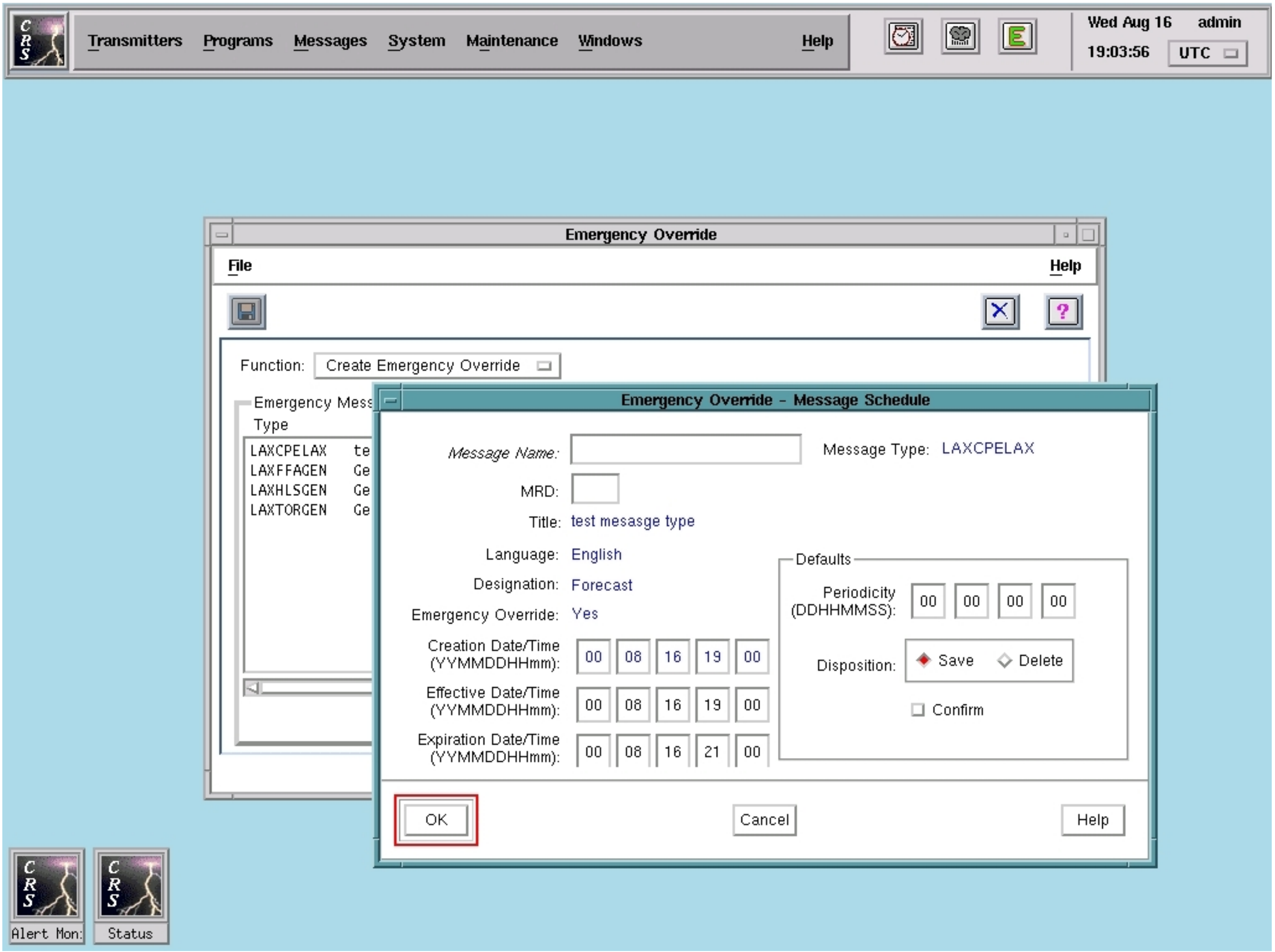
Emergency Message Types

Type	Title
LAXCPELAX	test message type
LAXFFAGEN	Generic Flash Flood Watch
LAXHLSGEN	Generic Hurr
LAXTORGEN	Generic Torn

The Emergency Message transmitted may now be Scheduled for rebroadcast, Saved for later retrieval or Deleted.

Make a selection from below.

Figure 86. Emergency Override - Schedule/Save Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
19:03:56
UTC
Emergency Override
File
Help
Emergency Override – Message Schedule
Defaults
OK
Cancel
Help
Alert Mon:
Status

Function: Create Emergency Override

Emergency Message Type

LAXCPELAX	te
LAXFFAGEN	Ge
LAXHLSGEN	Ge
LAXTORGEN	Ge

Message Name:

Message Type: LAXCPELAX

MRD:

Title: test mesasge type

Language: English

Designation: Forecast

Emergency Override: Yes

Creation Date/Time (YYMMDDHHmm): 00 08 16 19 00

Effective Date/Time (YYMMDDHHmm): 00 08 16 19 00

Expiration Date/Time (YYMMDDHHmm): 00 08 16 21 00

Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ● Save ○ Delete

☐ Confirm

Figure 87. Emergency Override - Message Schedule Window

2. Enter the desired message name in the Message Name field. This field will accept up to 20 ASCII characters.

3. Enter a Message Reference Descriptor (MRD) in the MRD field, if desired. This field will accept up to 3 digits (in the range 0 to 999) or null. Please **note** that this field is provided to enable you to assign an identifier to the message so as to avoid the inadvertent replacement of another "active" message from a previous emergency override session.

4. Change defaults (i.e., Periodicity, Disposition, and Confirm), if desired. Please **note**, however, that any changes you make to these fields will be for this emergency override message instance only and hence will not affect those parameters defined for the selected message type. Also **note** that if you want the message to be saved following its final broadcast, then make sure you have selected the Save option in the Disposition field. If changing these fields and unsure as to how, please refer to Step 9 under paragraph 3.6.2.3.2.

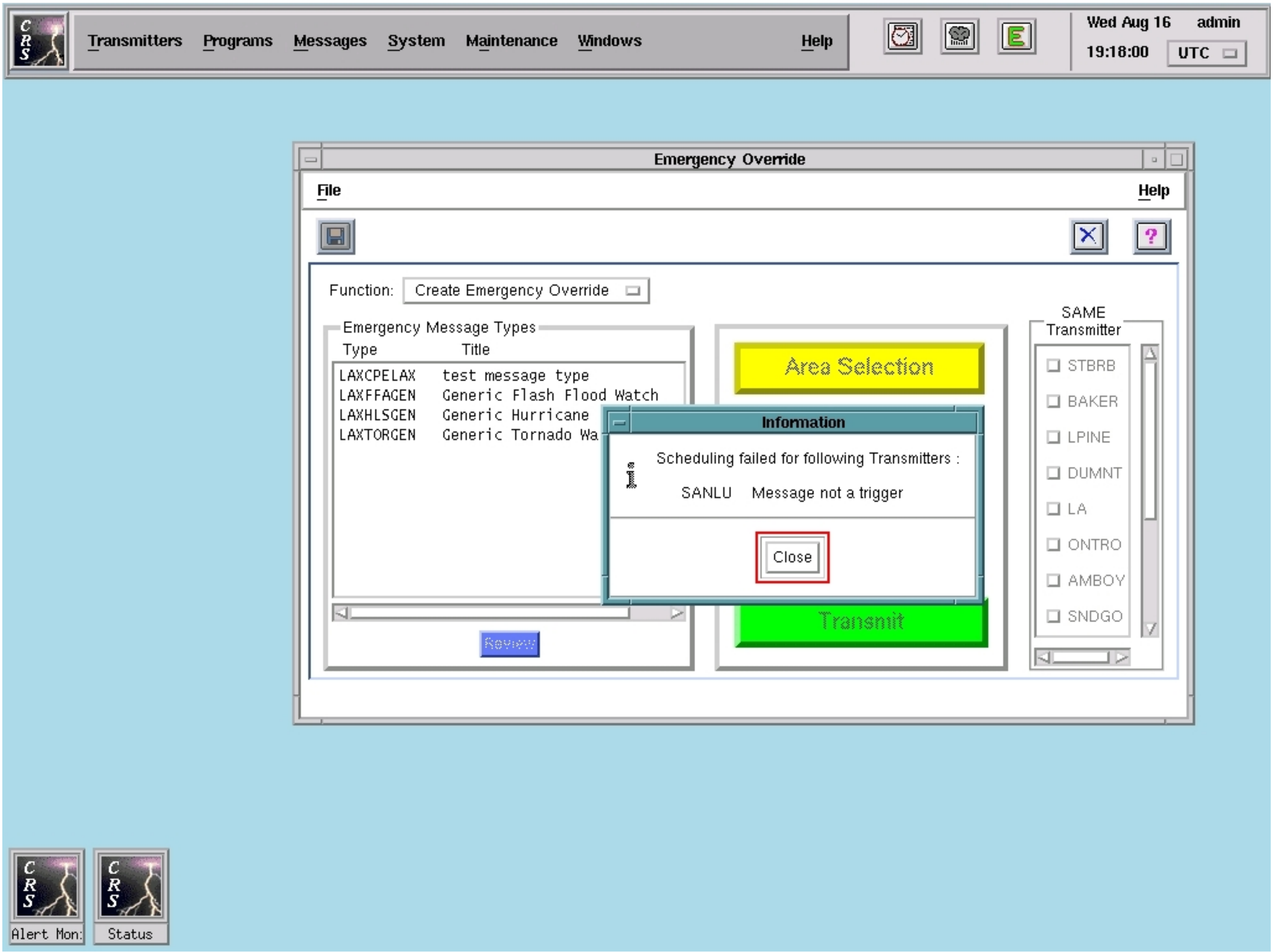
5. Click the *OK* button. The message will then be scheduled for subsequent rebroadcast. If there is a problem detected with this request, an ***Information*** dialogue window will be presented (see Figure 88), indicating the nature of the problem. Please **note** that an emergency override message when scheduled for rebroadcast becomes just another weather message.

b. Save Emergency Override Message. To save an emergency override message, perform the following steps:

1. Click the *Save* button (in the ***Emergency Override - Schedule/Save*** window). The ***Save As ...*** window will then be presented (see Figure 89).

2. Enter the desired message name in the Message Name field. This field will accept up to 20 ASCII characters.

3. Enter an MRD in the MRD field, if desired. This field will accept up to 3 digits (in the range 0 to 999) or null.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
admin
UTC
Emergency Override
File
Help
Emergency Message Types
SAME Transmitter
☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ ONTRO
☐ AMBOY
☐ SNDGO
Area Selection
Transmit
Review
Information
Close
Alert Mon:
Status

Wed Aug 16
19:18:00

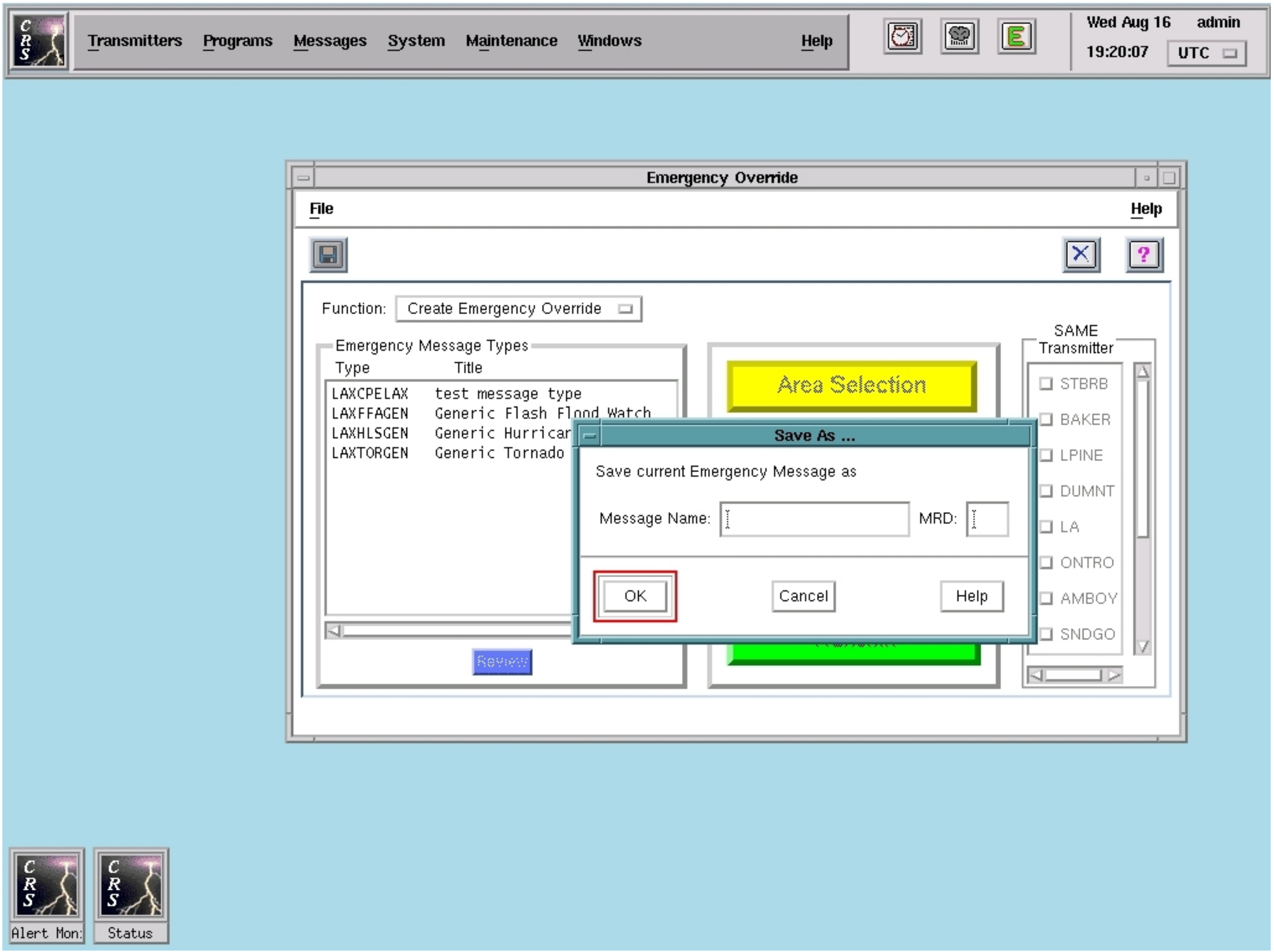
Function: Create Emergency Override

Type	Title
LAXCPELAX	test message type
LAXFFAGEN	Generic Flash Flood Watch
LAXHLSGEN	Generic Hurricane
LAXTORGEN	Generic Tornado Wa

Scheduling failed for following Transmitters :

SANLU Message not a trigger

Figure 88. Information Dialogue Window

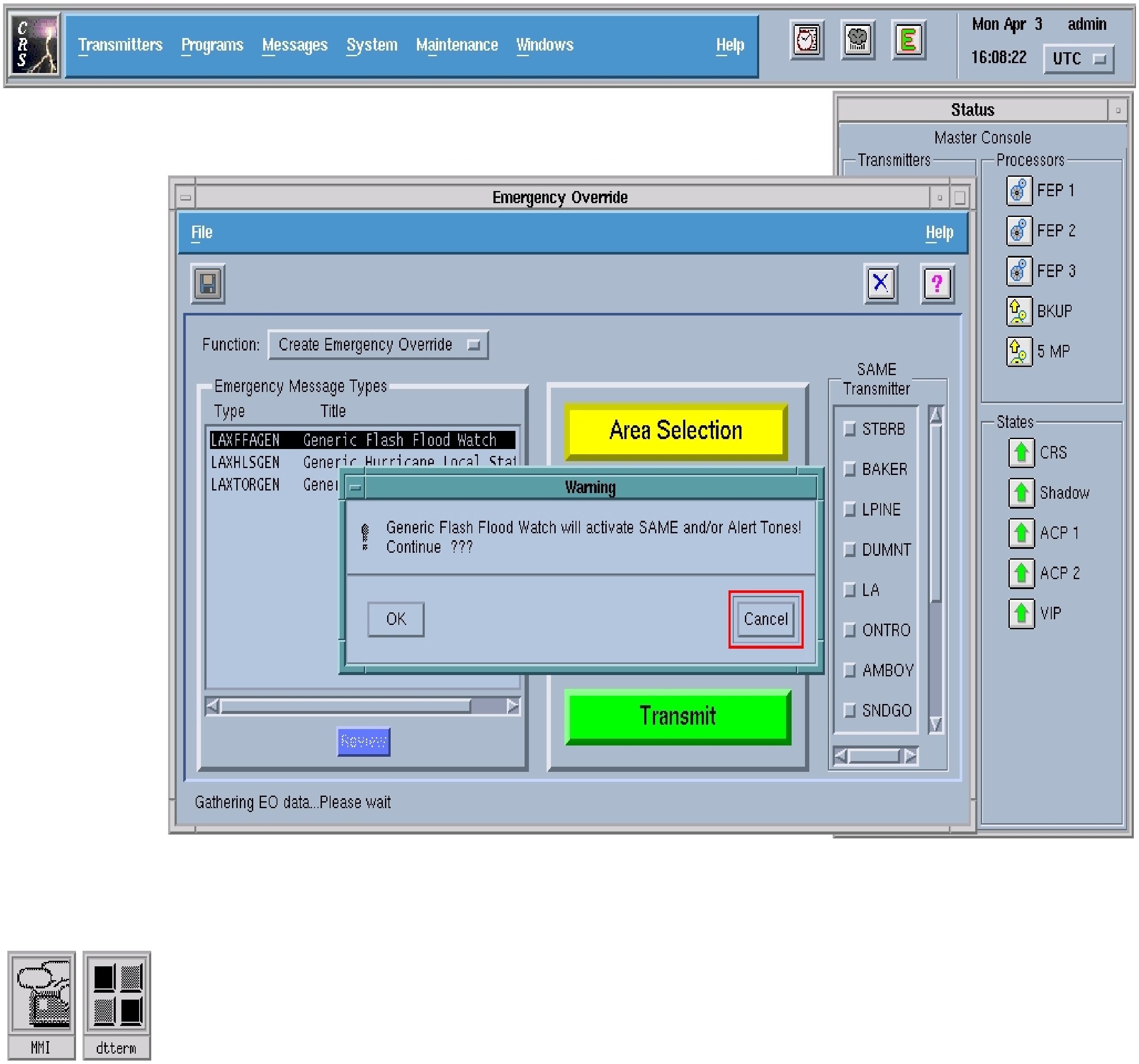

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
19:20:07
UTC
Emergency Override
File
Help
Function: Create Emergency Override
Emergency Message Types
Type
Title
Area Selection
SAME Transmitter
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
Review
Save As ...
Save current Emergency Message as
Message Name:
MRD:
OK
Cancel
Help
Alert Mon:
Status

LAXCPELAX test message type
LAXFFAGEN Generic Flash Flood Watch
LAXHLSGEN Generic Hurricar
LAXTORGEN Generic Tornado

Figure 89. Save As ... Window

4. Click the *OK* button. The emergency override message will subsequently be saved, and you will receive confirmation to this effect in the status display area (of the ***Emergency Override*** window).

c. Delete Emergency Override Message. To delete an emergency override message, merely click the *Delete* button (in the ***Emergency Override - Schedule/Save*** window). The message will then be deleted, and you will receive confirmation to this effect in the status display area (of the ***Emergency Override*** window).


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
16:08:22
UTC
Status
Master Console
Transmitters
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
Emergency Override
File
Help
Area Selection
Transmit
SAME Transmitter
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
Review
Warning
OK
Cancel
MMI
dtterm

Function: Create Emergency Override

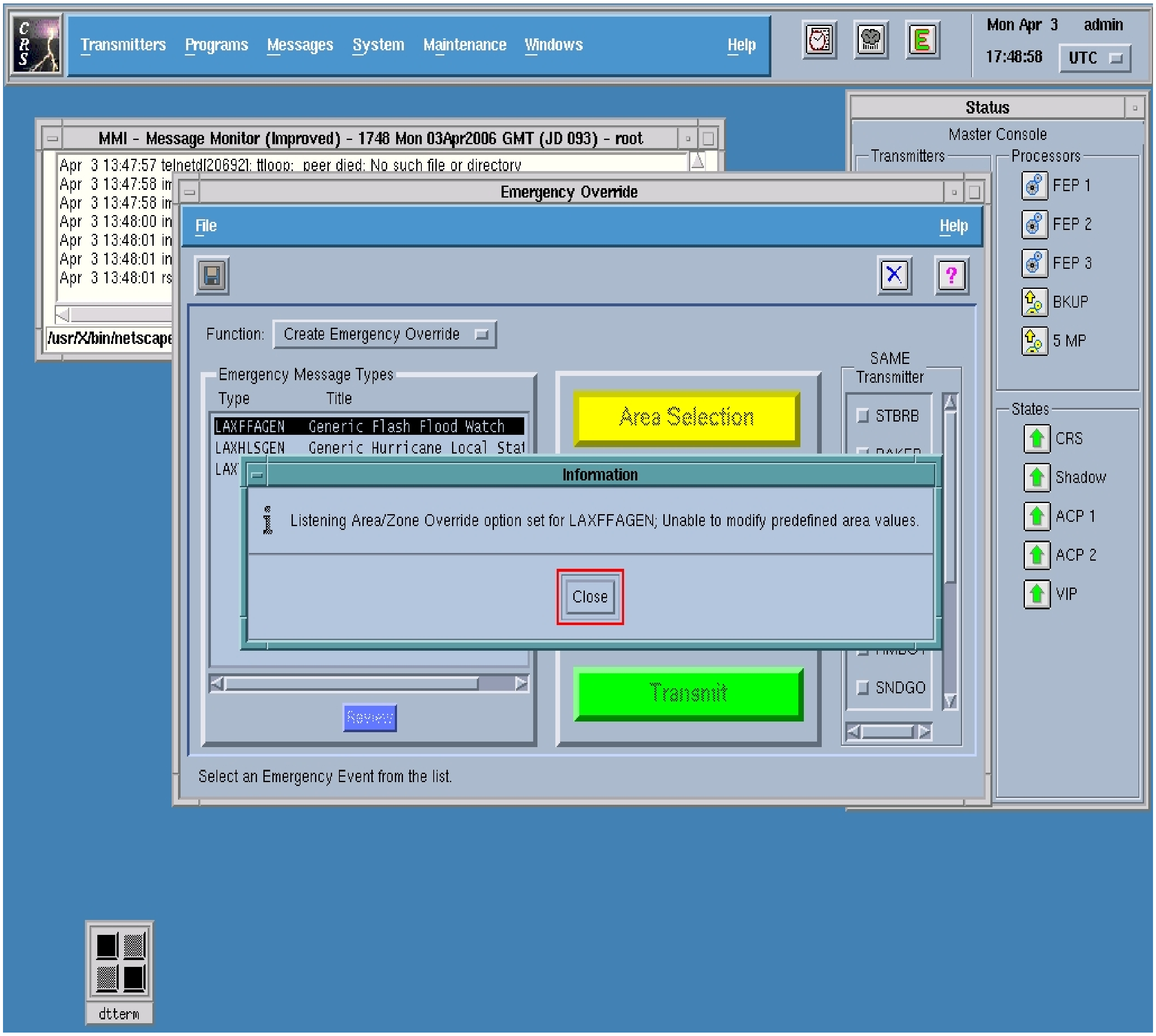
Emergency Message Types

Type	Title
LAXFFAGEN	Generic Flash Flood Watch
LAXHLSGEN	Generic Hurricane Local Sta
LAXTORGEN	Gene

Generic Flash Flood Watch will activate SAME and/or Alert Tones!
Continue ???

Gathering EO data...Please wait

Figure 90. Warning Message Window - SAME and/or Alert tones


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
17:48:58
UTC
Status
Master Console
Transmitters
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
File
Help
Area Selection
Transmit
Review
SAME Transmitter
STBRB
SNDGO
Close
dtterm

MMI - Message Monitor (Improved) - 1748 Mon 03Apr2006 GMT (JD 093) - root

```
Apr  3 13:47:57 telnetd[20692]: ttloop:  peer died: No such file or directory
Apr  3 13:47:58 in
Apr  3 13:47:58 in
Apr  3 13:48:00 in
Apr  3 13:48:01 in
Apr  3 13:48:01 in
Apr  3 13:48:01 rs
/usr/X/bin/netscape
```

Emergency Override

Function: Create Emergency Override

Emergency Message Types

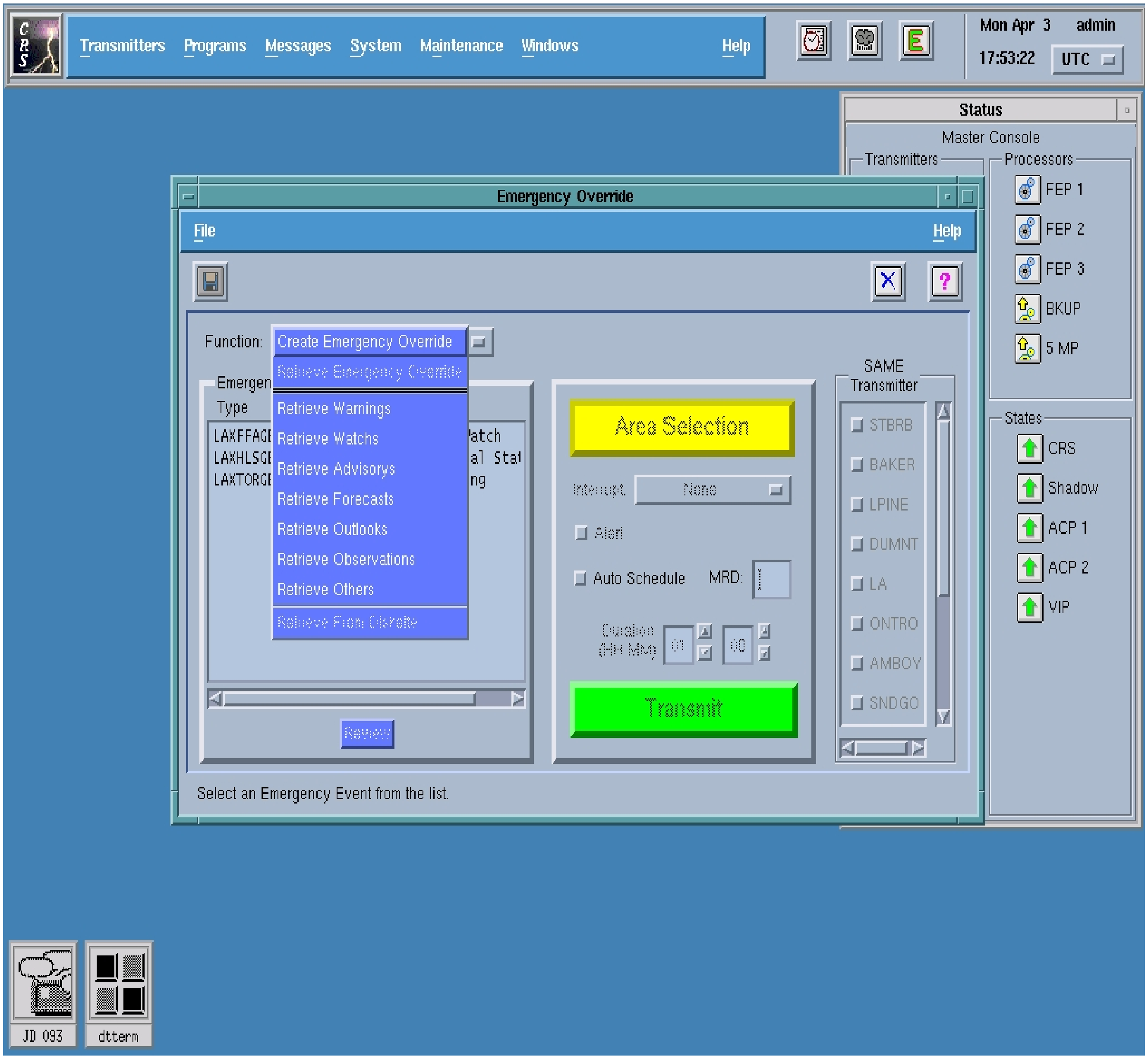
Type	Title
LAXFFAGEN	Generic Flash Flood Watch
LAXHLSGEN	Generic Hurricane Local Stat
LAX	

Information

Listening Area/Zone Override option set for LAXFFAGEN; Unable to modify predefined area values.

Select an Emergency Event from the list.

Figure 91. Warning Message Window - Listening Area/Zone Override


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
17:53:22
UTC
Status
Master Console
Transmitters
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
Emergency Override
File
Help
Function:
Create Emergency Override
Retrieve Emergency Override
Retrieve Warnings
Retrieve Watchs
Retrieve Advisorys
Retrieve Forecasts
Retrieve Outlooks
Retrieve Observations
Retrieve Others
Retrieve From Clipboard
Emergen
Type
LAXFFAGI
LAXHLSGI
LAXTORGI
Review
Area Selection
Interrupt
None
Alert
Auto Schedule
MRD:
Duration (HH:MM)
01
00
Transmit
SAME Transmitter
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
JD 093
dtterm

Select an Emergency Event from the list.

Figure 92. Retrieve Emergency Override Options - No longer available

3.6.2.3.9. Call-to-Action Priority

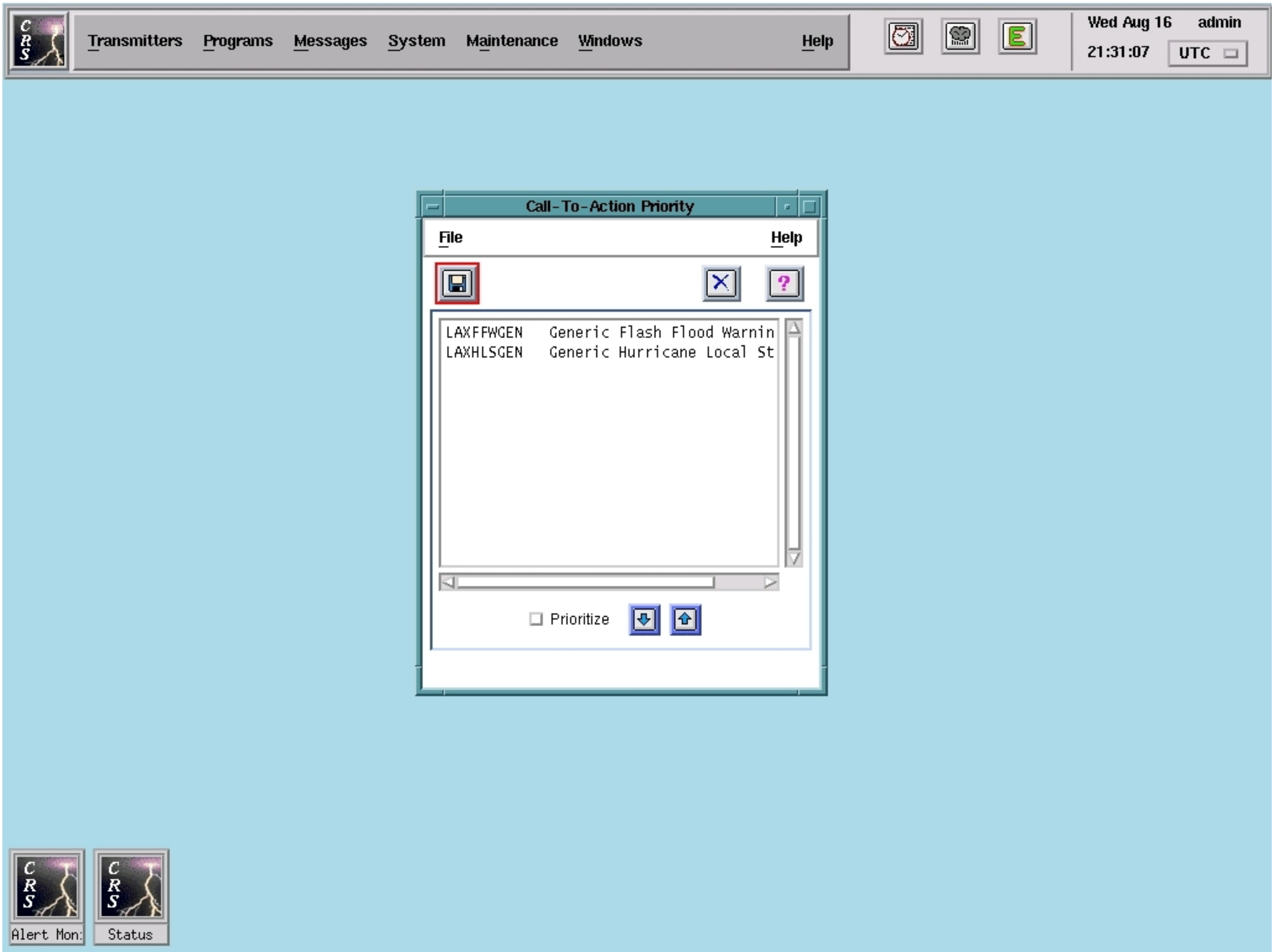
This submenu option allows you to prioritize all predefined message types with associated Call-to-Action (CTA) components. To perform the option, click the **Messages** menu and then select "Call-to-Action Priority". The ***Call-to-Action Priority*** window will then be presented (see Figure 93). To continue, perform the following steps:

a. Highlight the message type and then use the *Up* and *Down* arrow buttons to move (or "prioritize") the message type within the list. (Each click of the button will move the highlighted message type one position within the list.) By default, all message types with CTAs will be prioritized based on creation time.

b. Repeat Step a. for any other message types that you wish to prioritize.

c. Click the toggle button to the left of the Prioritize field.

d. Click the APPLY hotkey (in the hotkey menu bar). The prioritized message types with CTAs will subsequently be saved, and you will receive confirmation to this effect in the status display area.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:31:07
UTC
Call-To-Action Priority
File
Help
Prioritize
Alert Mon:
Status

```
LAXFFWGEN   Generic Flash Flood Warnin
LAXHLSGEN   Generic Hurricane Local St
```

☐ Prioritize

Figure 93. Call-to-Action Priority Window

3.6.2.3.10. Synthetic Speech Override

This submenu option allows you to restore the ***Synthetic Speech Override*** window (see Figure 15).

As explained in paragraph 3.5.2.1.4, the ***Synthetic Speech Override*** window will automatically be displayed whenever AFOS/AWIPS conversion messages are received and will remain (on top of all other windows) until you acknowledge (i.e., convert or accept) the messages and then schedule them, whereupon the window will be iconified. If you were to close the window at this point and then decided you wanted to return it to an iconified state, you can easily do so via this submenu option. Upon doing this, the window will be re-displayed momentarily and then returned to an iconified state (until an AFOS/AWIPS conversion message is received, at which point the window will, once again, be re-displayed).

For more information concerning the ***Synthetic Speech Override*** window, please refer to paragraph 3.5.2.1.4.

3.6.2.4. System Menu

The **System** menu bar component features nine submenu options, i.e., System Status, Alert Monitor, Data Verify, Start System, Stop System, Start/Stop Shadowing, Start/Stop Log Printing, System Reports, and Exit to UNIX, which allow you to perform specific system-related functions. These options are described below in paragraphs 3.6.2.4.1 through 3.6.2.4.9, respectively.

3.6.2.4.1. System Status

This submenu option allows you to restore the ***Status*** window (see Figure 12).

As explained in paragraph 3.5.2.1.2, the ***Status*** window is displayed after you log into the system, and although it can be moved, lowered, and iconified, it can never be closed (or terminated). However, in the event the window is lost due to an application error, you can restart the window by accessing and selecting this option. If you have merely iconified the window, you can, as an alternative to double clicking the associated icon, select this submenu option to restore the window.

3.6.2.4.2. Alert Monitor

This submenu option allows you to restore the ***Alert Monitor*** window (see Figure 12).

As explained in paragraph 3.5.2.1.3, the ***Alert Monitor*** window, like the ***Status*** window, is displayed after you log into the system, and although it can be moved, lowered, and iconified, it can never be closed (or terminated). However, in the event the window is lost due to an application error, you can restart the window by accessing and selecting this option. If you have merely iconified the window, you can, as an alternative to double clicking the associated icon, select this submenu option to restore the window.

3.6.2.4.3. Data Verify

This submenu option allows you to perform a verification of the CRS database.[10] (*Simply defined, this process involves checking the integrity of all database relationships.*) To perform the option, click the **System** menu and then select "Data Verify". The ***Data Verify*** window will then be presented (see Figure 94), whereupon you can begin the verification by clicking the *OK* button.

Upon completion of the database verification, you will receive either a success or failure notification. If the verification was successful, this notification will appear in the form of a message (i.e., "Verify successful") in the Status field (of the ***Data Verify*** window). If the verification was unsuccessful, this notification will appear in the form of an error notification window. Should this happen, perform the following steps to determine the nature of and a possible method for reconciling the error:

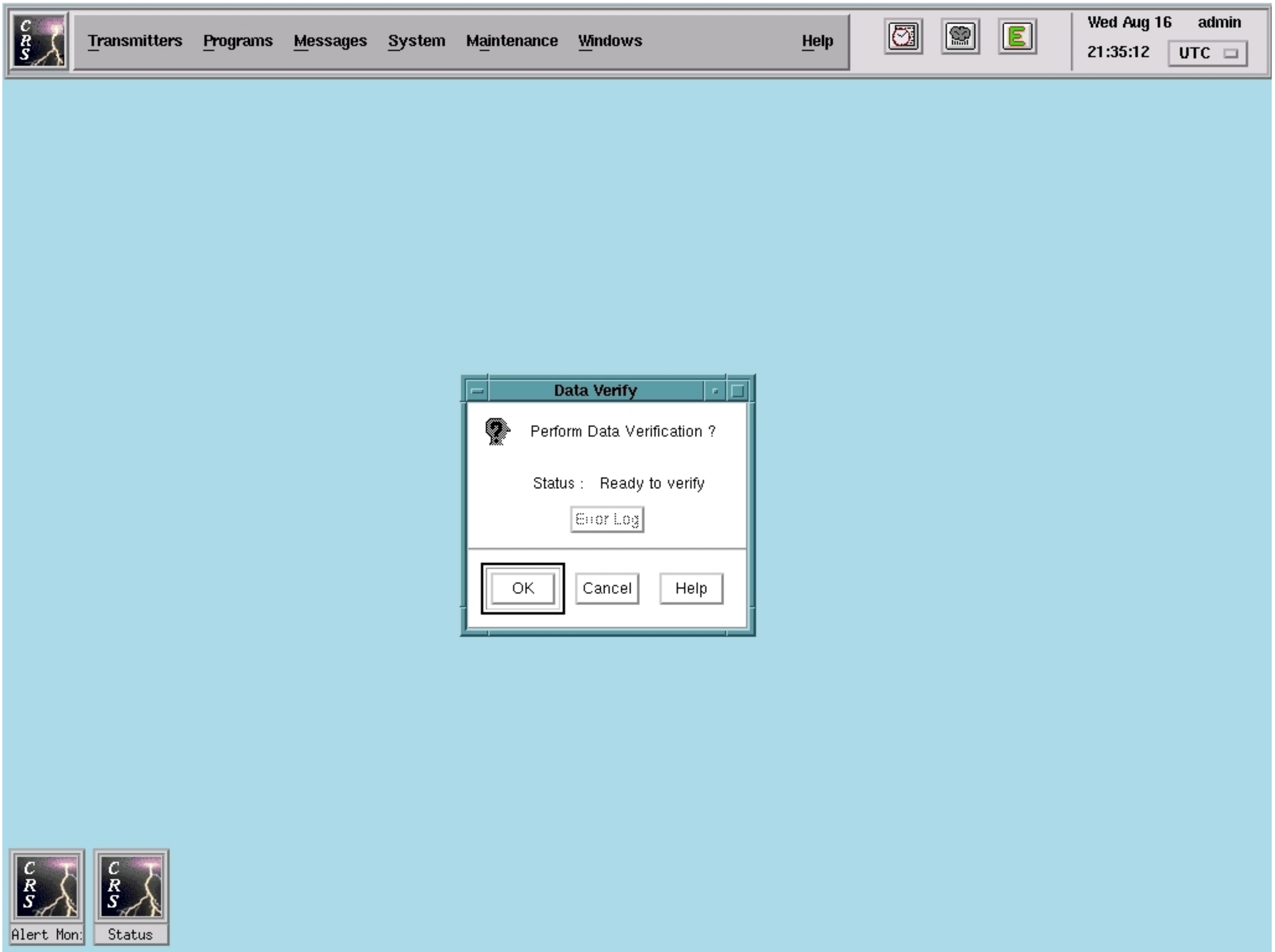
a. Click the *OK* button (in the error notification window), whereupon the error window will be closed and the *Error Log* button in the ***Data Verify*** window will become active (see Figure 95). (You will also observe that the Status field will indicate "Verify failed".)

b. Click the *Error Log* button, after which the ***Data Verify - Report*** window will be presented (see Figure 96), displaying the detected error.

c. Review the error to determine its severity; if you deem it to be of a serious nature, then press the *Repair* button. CRS will attempt to fix the detected problem, after which you will receive a success/failure notification window. If CRS fails to rectify the error, you should contact NOAA software maintenance personnel and apprise them of the failure condition. Depending on the criticality of the error and its effect on CRS, you may have to restore the database via the Database Backup/Restore submenu (see paragraph 3.6.2.5.12).

---

[10] *This submenu option is available to the CRS system administrator only. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*

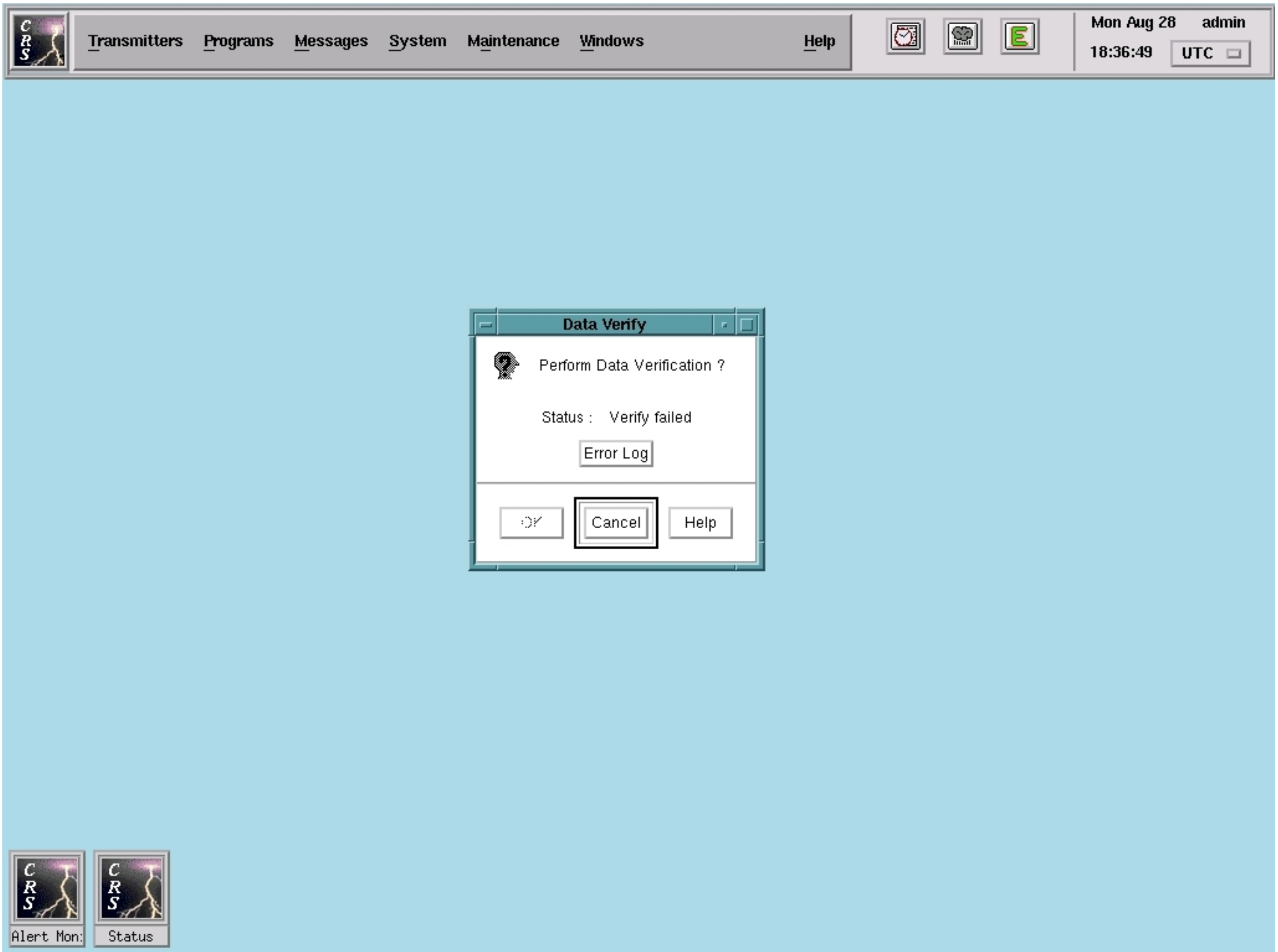


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:35:12
UTC
Data Verify
Error Log
OK
Cancel
Help
Alert Mon:
Status

Perform Data Verification ?

Status : Ready to verify

Figure 94. Data Verify Window

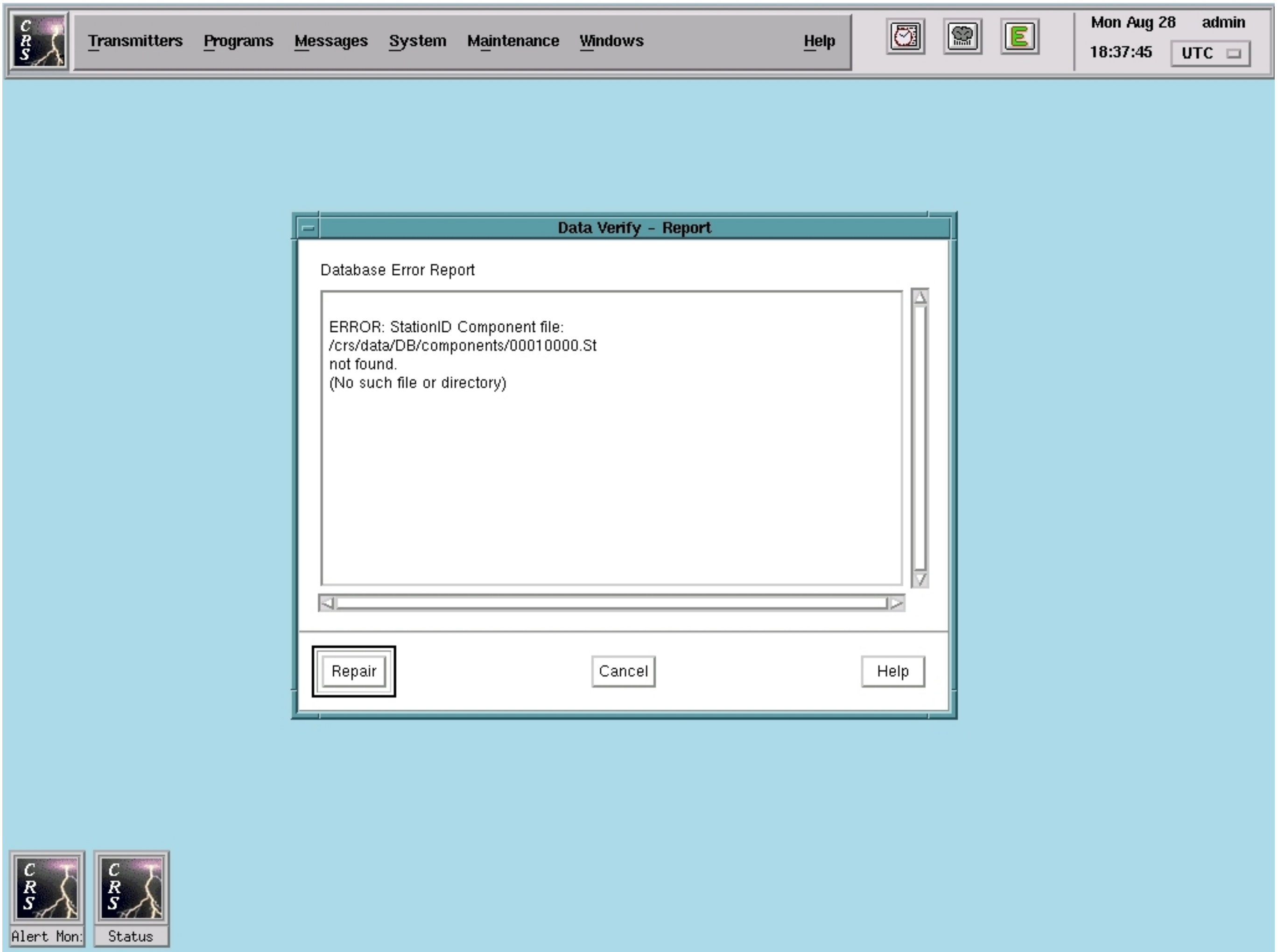


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:36:49
UTC
Data Verify
Error Log
OK
Cancel
Help
Alert Mon:
Status

Perform Data Verification ?

Status : Verify failed

Figure 95. Data Verify Window - Failure Notification

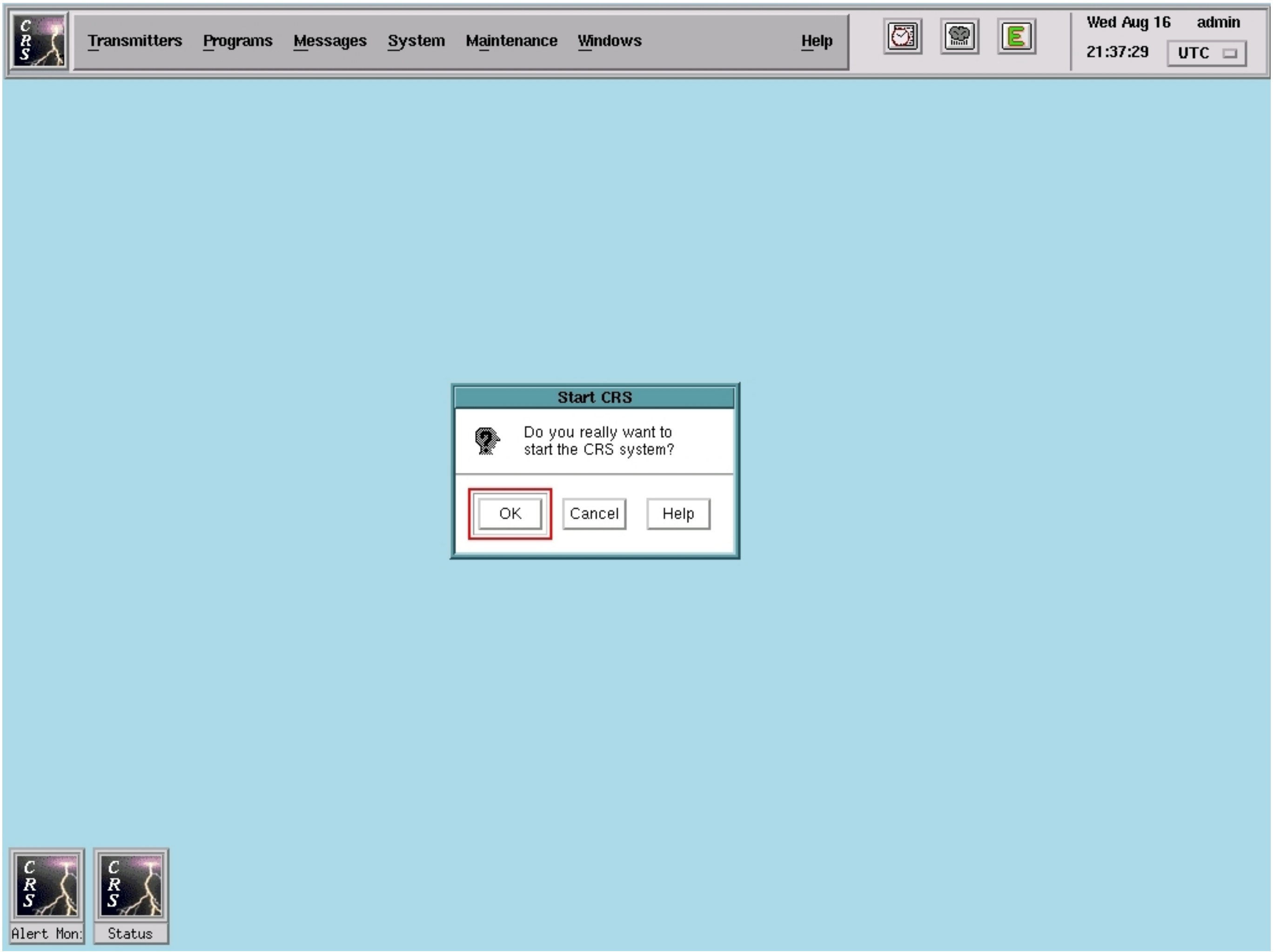

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:37:45
UTC
Data Verify - Report
Database Error Report
Repair
Cancel
Help
Alert Mon:
Status

```
ERROR: StationID Component file:
/crs/data/DB/components/00010000.St
not found.
(No such file or directory)
```

Figure 96. Data Verify - Report Window

3.6.2.4.4. Start System

This submenu option allows you to start the CRS system. To perform the option, click the **System** menu and then select "Start System". The ***Start System*** window will then be presented (see Figure 97), whereupon you can then effect system startup by clicking the *OK* button.

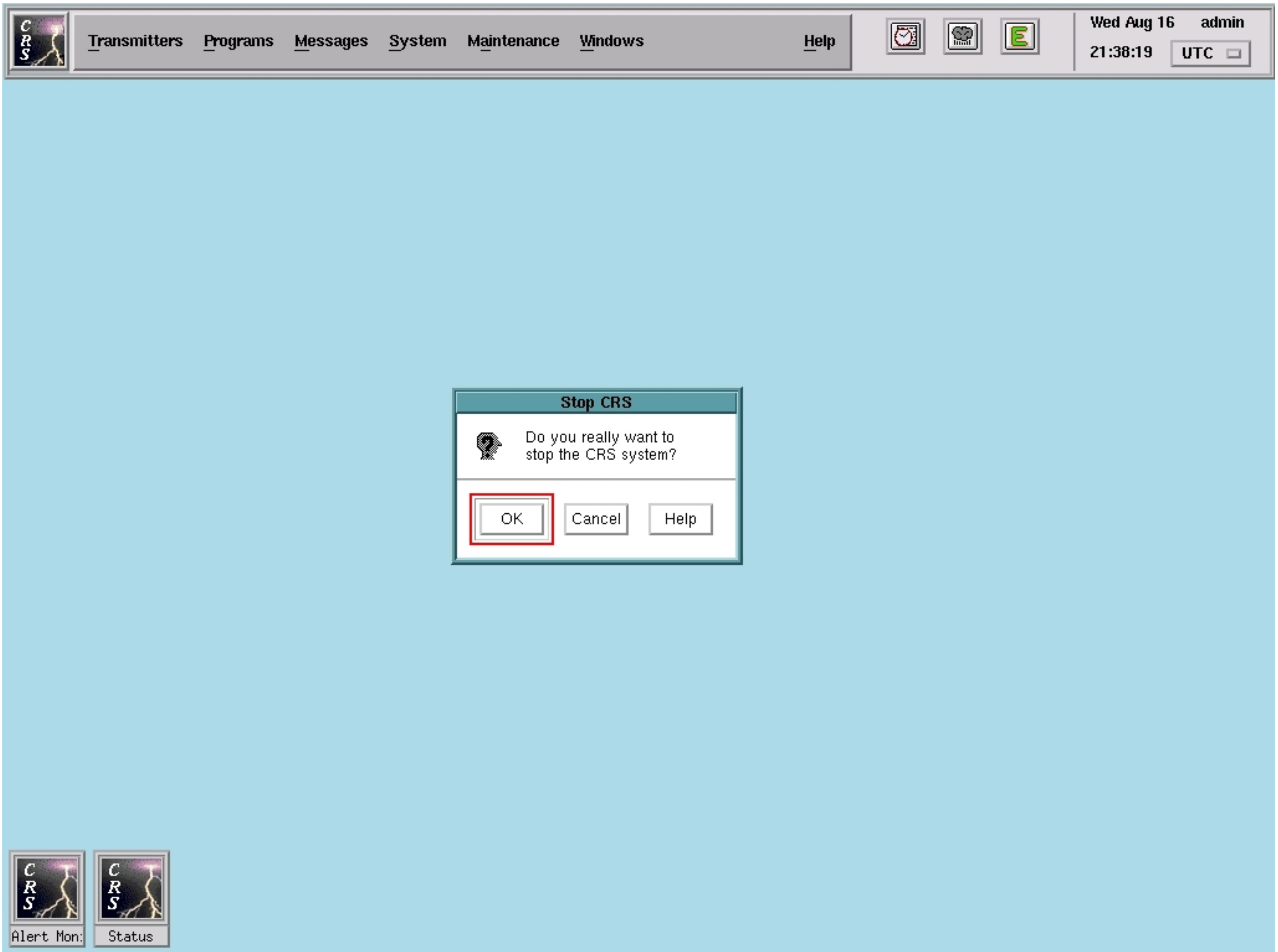

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:37:29
UTC
Start CRS
OK
Cancel
Help
Alert Mon:
Status

Do you really want to start the CRS system?

Figure 97. Start System Window

3.6.2.4.5. Stop System

This submenu option allows you to stop the CRS system. To perform the option, click the **System** menu and then select "Stop System". The ***Stop CRS*** window will then be presented (see Figure 98), whereupon you can then effect system shutdown by clicking the *OK* button.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:38:19
UTC
Stop CRS
OK
Cancel
Help
Alert Mon:
Status

Do you really want to stop the CRS system?

Figure 98. Stop System Window

3.6.2.4.6. Start/Stop Shadowing

This submenu option allows you to start or stop the CRS shadowing process. *(Simply defined, shadowing means replication of the database of the Master CRS system on the Shadow CRS system via the software.)* To perform the option, click the **System** menu, and then select "Start/Stop Shadowing". The ***Start/Stop Shadowing*** window will then be presented (see Figure 99). To continue, perform the following steps:

a. Select the desired operation (i.e., Start Shadowing or Stop Shadowing).

b. Click the APPLY hotkey (in the hotkey menu bar). The request (to start or stop shadowing) will subsequently be executed, and you will receive confirmation to this effect in the status display area.

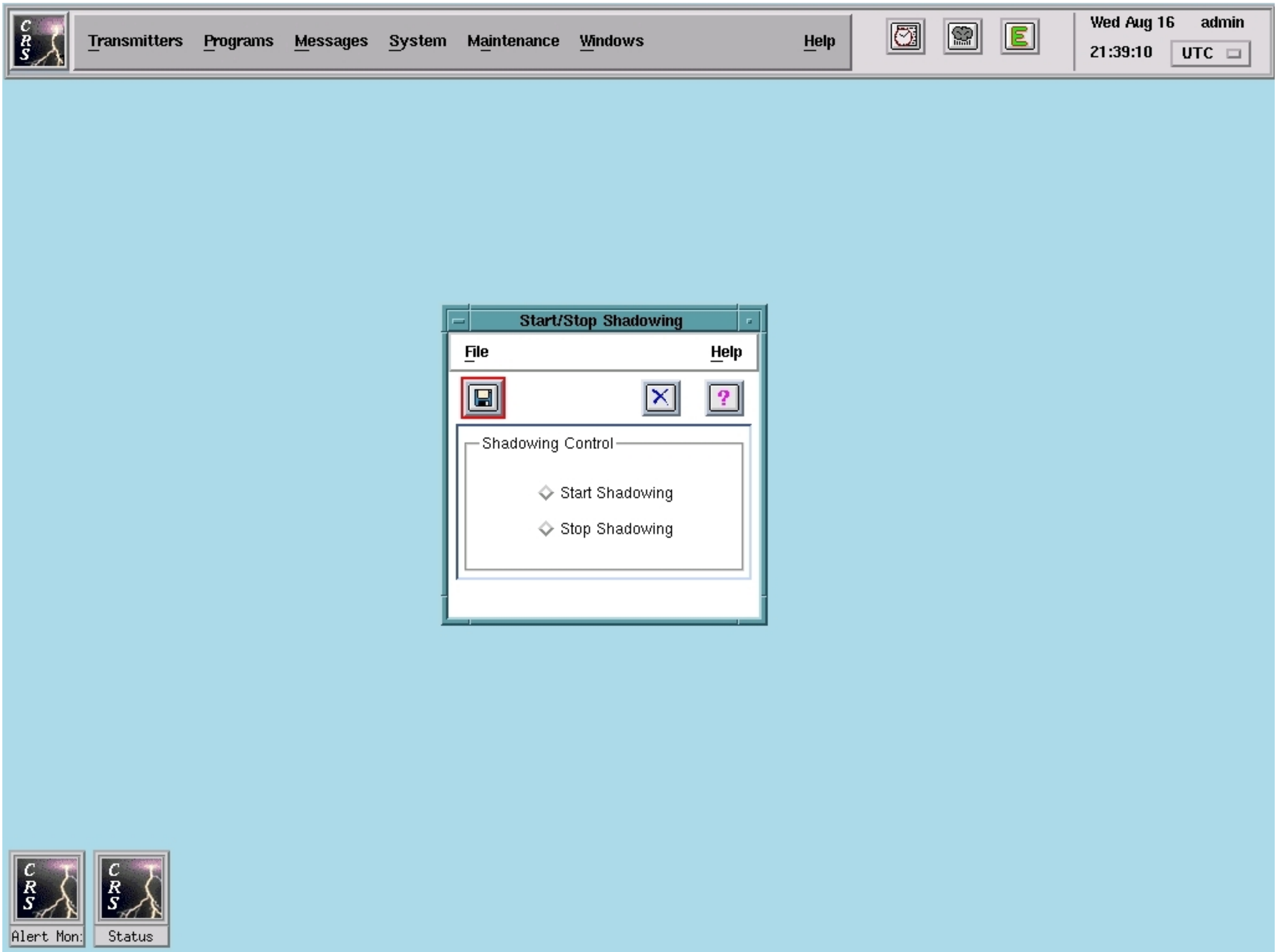

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:39:10
UTC
Start/Stop Shadowing
File
Help
Shadowing Control
◇ Start Shadowing
◇ Stop Shadowing
Alert Mon:
Status

Figure 99. Start/Stop Shadowing Window

3.6.2.4.7. Start/Stop Log Printing

This submenu option allows you to start (enable) or stop (disable) the CRS log printer. To perform the option, click the **System** menu and then select "Start/Stop Log Printing". The ***Start/Stop Log Printing*** window will then be presented (see Figure 100). To continue, perform the following steps:

a. Select the desired operation (i.e., Start Log Printing or Stop Log Printing).

b. Click the APPLY hotkey (in the hotkey menu bar). The request (to start or stop log printing) will subsequently be executed, and you will receive confirmation to this effect in the status display area.

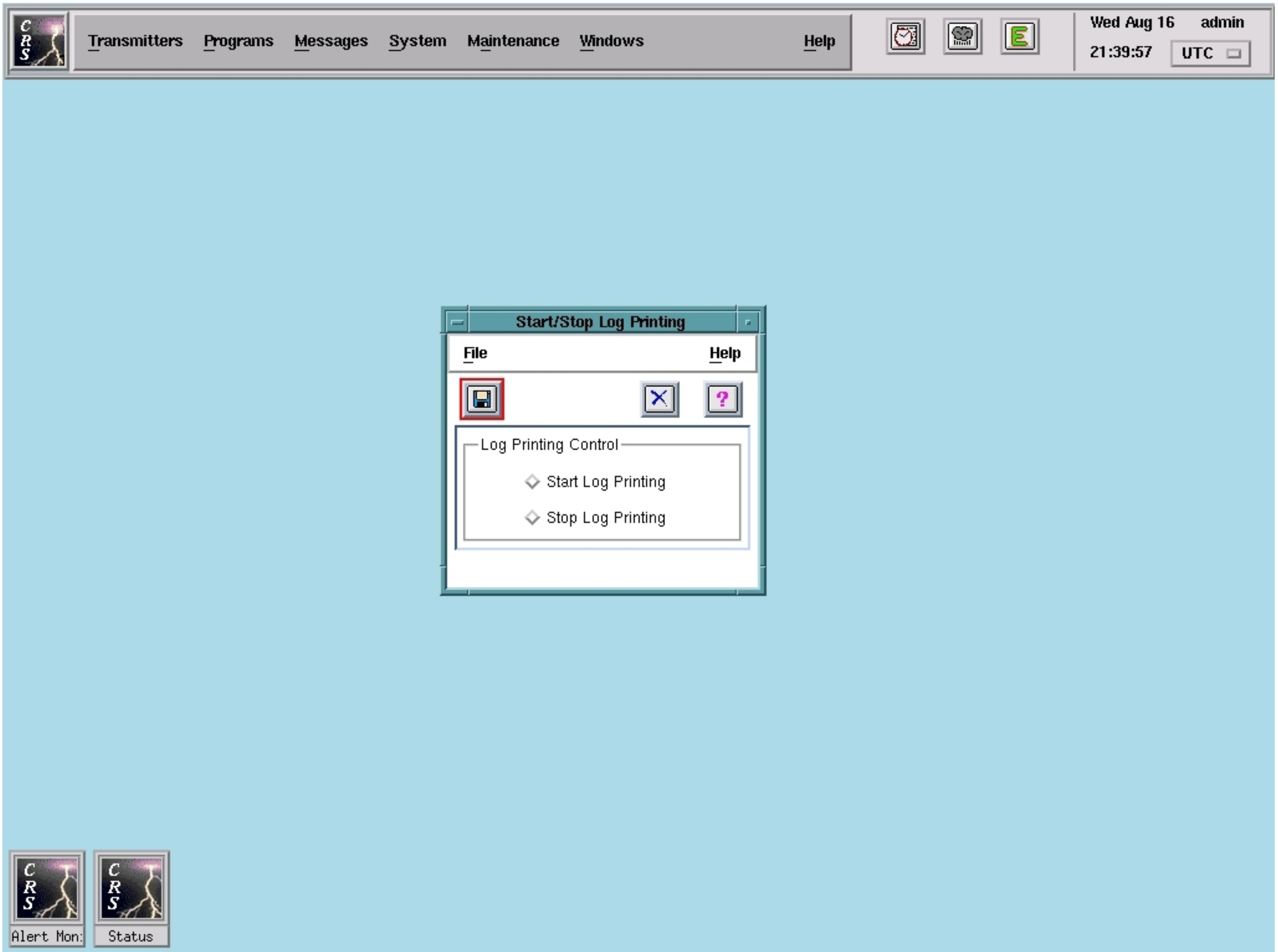

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:39:57
UTC
Start/Stop Log Printing
File
Help
Log Printing Control
Start Log Printing
Stop Log Printing
Alert Mon:
Status

Figure 100. Start/Stop Log Printing Window

3.6.2.4.8. System Reports

This submenu option allows you to select predefined reports for the purpose of displaying or printing. To perform the option, click the **System** menu and then select "System Reports". The ***System Reports*** window will then be presented (see Figure 101). To continue, perform the following steps:

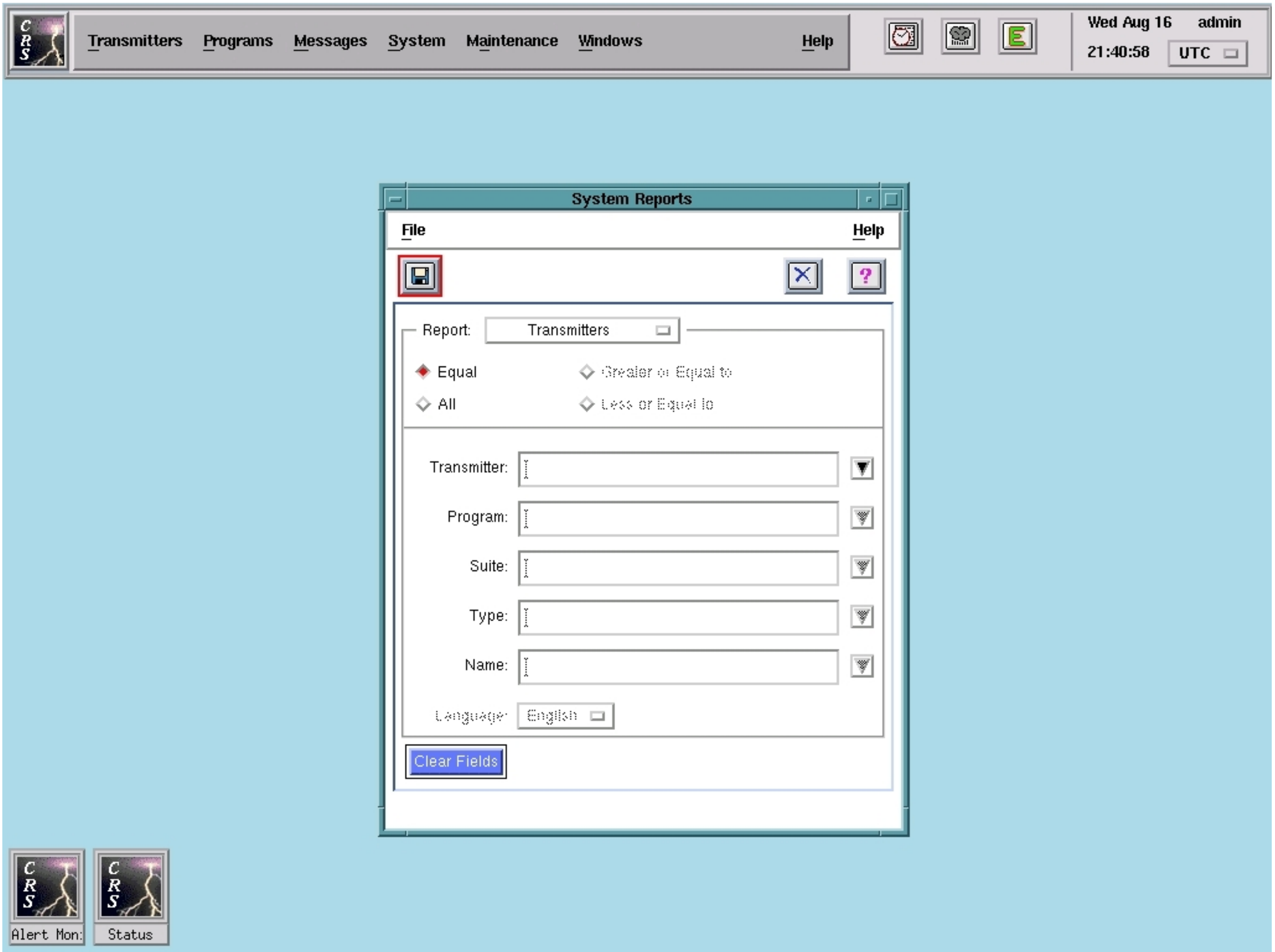
a. Specify the desired report type (i.e., Transmitters, Programs, Suites, Message Types, Message Groups, Message Components, or Weather Messages) by clicking the option button in the Report field and then selecting the report type from the option list.

b. Perform one of the following depending on the report type selected. In doing so, you can select, if desired, one of the available filtering conditions, i.e., Equal, All, Greater or Equal to, or Less or Equal to, to filter the system report data retrieved. (Please **note**, however, that not all conditions are pertinent and hence available to each of the system report types.) By default, the "Equal" filtering condition will be selected. *(Simply defined, "Equal" means that you want to retrieve a specific record that matches your search key parameters*[11]*; "All" means that you want to retrieve all records matching your search key parameters; "Greater or Equal to" means that you want to retrieve all records greater than or equal to your search key parameters; and "Less or Equal to" means you want to retrieve all records less than or equal to your search key parameters.*

As an example, if you selected Message Type in the Report field, specified the "Greater or Equal to" condition, and then specified "ANCFFSANC" in the Type field, the system (upon executing the search) would query and retrieve from the database all record types whose names were (lexicographically) greater than or equal to "ANCFFSANC". Examples of the message types retrieved from this search might be "ANCFFWANC" and "ANCFLSANC" (provided, of course, these records were actually in the database and were the only ones greater than or equal to the specified message type). If, on the other hand, for the same type of search, you specified "Less or Equal to", the system (upon executing the search) would query and retrieve from the database all record types whose names were (lexicographically) less than or equal to "ANCFFSANC". Examples of the message types retrieved from this search might be "ANCFFGANC" and "ANCFFAANC" (again, provided these records were actually in the database and were the only ones less than or equal to the specified message type).)

---

[11] *"Search key" parameters are those parameters specified for your search (or record retrieval) operation. They include all the inputs/selections you make (via the fields provided) prior to executing the search.*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:40:58
UTC
System Reports
File
Help
◇ Greater or Equal to
◇ All
◇ Less or Equal to
Transmitter:
Program:
Suite:
Type:
Name:
Clear Fields
Alert Mon:
Status

Report: Transmitters

◆ Equal

Language: English

Figure 101. System Reports Window

When selecting the following report types and specifying the associated search key parameters, if you decide you want to clear your input data at some point, you can easily do so via the *Clear Fields* button.

1. Transmitter. If you selected this as your report type, you can continue by selecting either the Equal or All condition and then entering (via the associated list button) the desired transmitter in the Transmitter field.

2. Programs. If you selected this as your report type, you can continue by selecting either the Equal or All condition and then entering (via the associated list button) the desired program in the Program field.

3. Suites. If you selected this as your report type, you can continue by selecting the Equal or All filtering condition and then entering (via the associated list button) the desired suite in the Suite field.

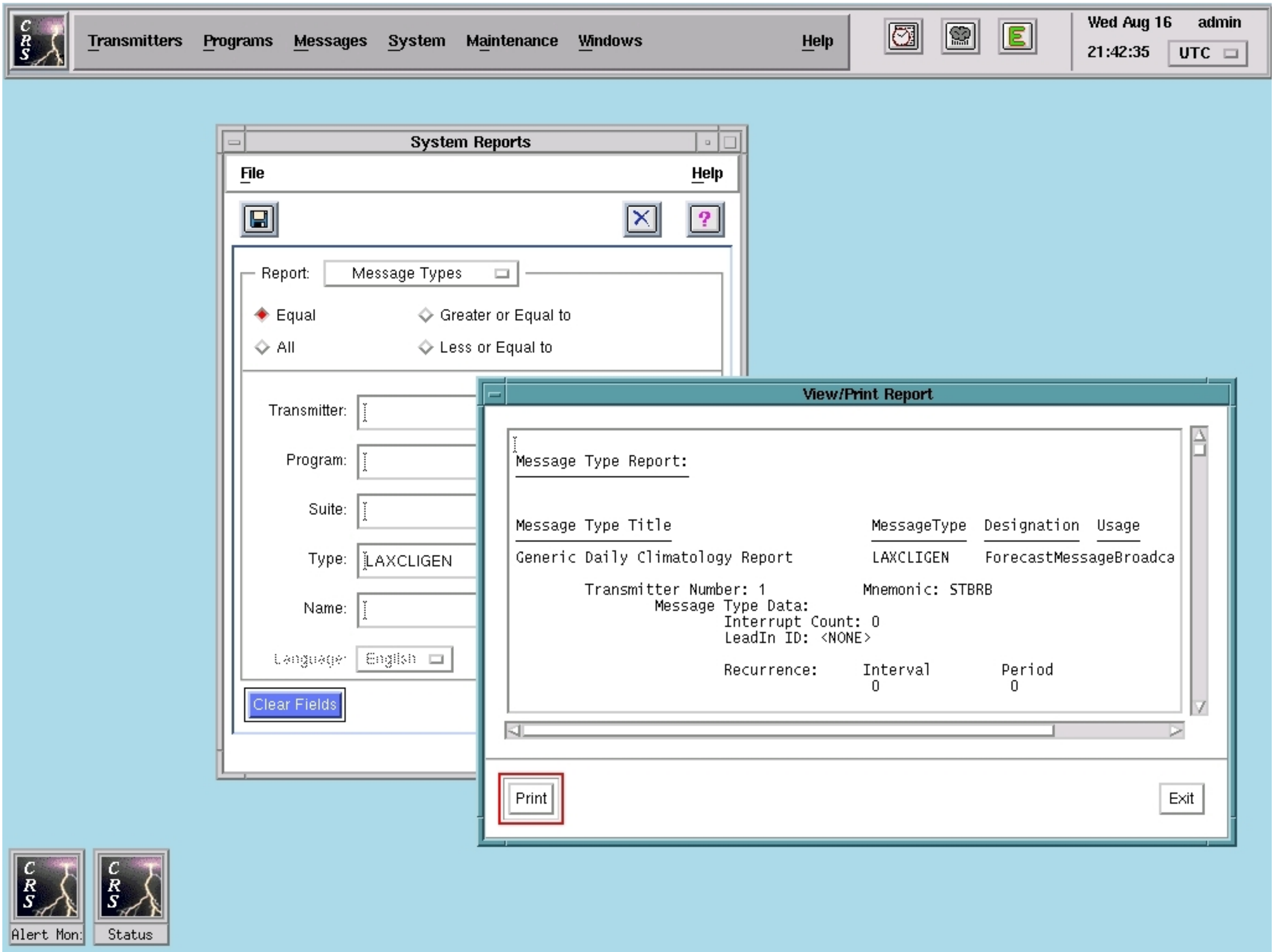
4. Message Types. If you selected this as your report type, you can continue by selecting one of the filtering conditions and then entering (via the associated list buttons) the desired message type and/or name in the Type and Name fields.

5. Message Group. If you selected this as your report type, you can continue by selecting the Equal or All filtering condition and then entering (via the associated list button) the desired message group in the Name field.

6. Message Components. If you selected this as your report type, you can continue by selecting the Equal or All filtering condition and then entering (via the associated list buttons) the desired message component type and/or name in the Type and Name fields. If you want to limit your search to message components with Spanish rather than English text (which is the default), click the option button in the Language field and select Spanish from the option list (i.e., prior to executing the search).

7. Weather Messages. If you selected this as your report type, you can continue by selecting the Equal or All filtering condition and then entering (via the associated list buttons) the desired weather message type and/or name in the Type and Name fields.

c. Click the APPLY hotkey (in the hotkey menu bar). The ***View/Print Report*** window will then be presented (see Figure 102), displaying the retrieved report. To print the report, click the *Print* button.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:42:35
UTC
System Reports
File
Help
Transmitter:
Program:
Suite:
Name:
Clear Fields
View/Print Report
Print
Exit
Alert Mon:
Status

Report: Message Types

◆ Equal
◇ Greater or Equal to
◇ All
◇ Less or Equal to

Type: LAXCLIGEN

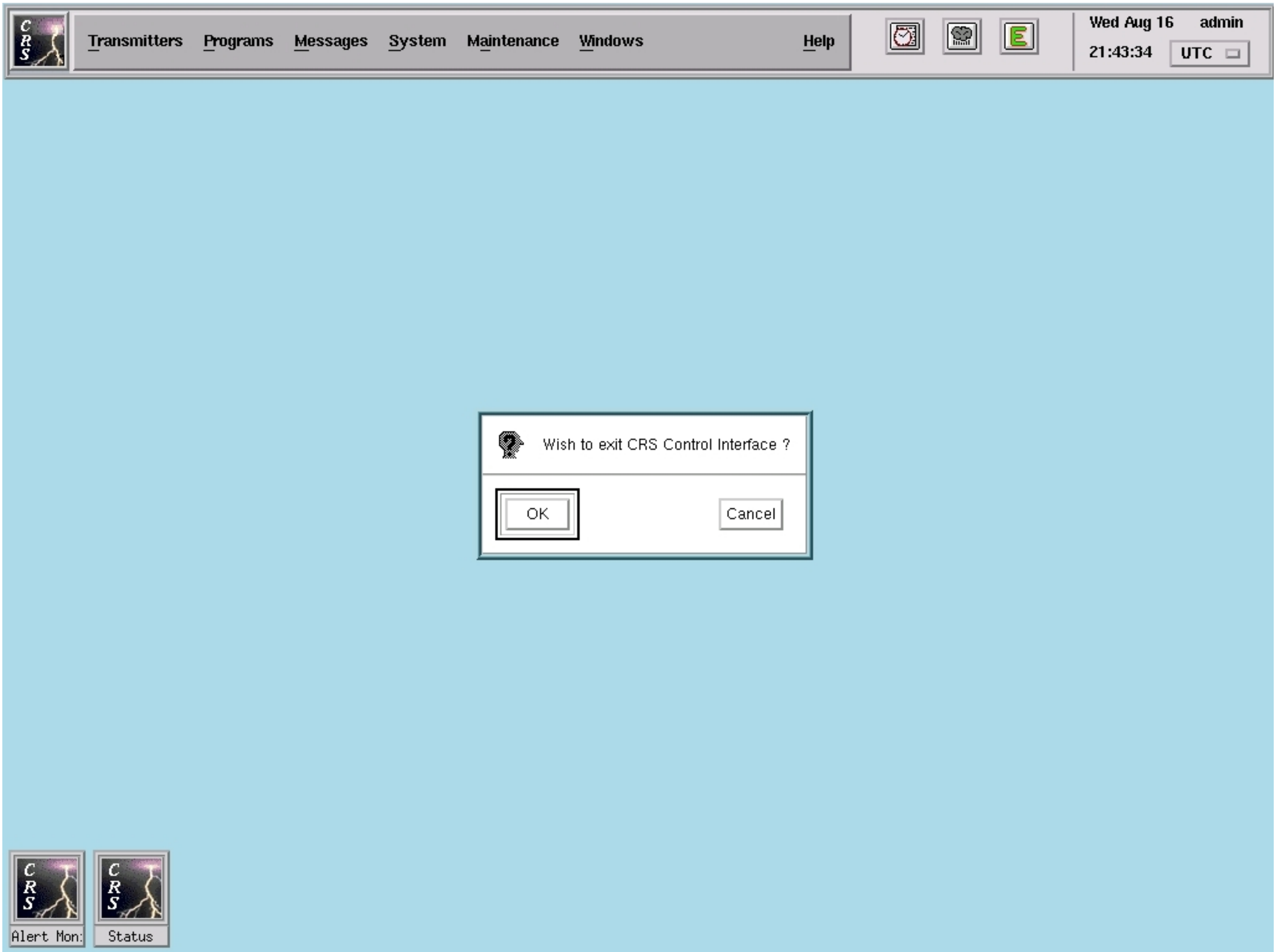
Language: English

```
Message Type Report:


Message Type Title                    MessageType  Designation  Usage
Generic Daily Climatology Report      LAXCLIGEN    ForecastMessageBroadca

        Transmitter Number: 1          Mnemonic: STBRB
                Message Type Data:
                        Interrupt Count: 0
                        LeadIn ID: <NONE>

                        Recurrence:     Interval        Period
                                         0               0
```

Figure 102. View/Print Report Window

3.6.2.4.9. Exit to UNIX

This submenu option allows you to exit the CRS man-machine interface. To perform the option, click the **System** menu and then select "Exit to UNIX". The ***Exit to UNIX*** window will then be presented (see Figure 103), whereupon you can exit to UNIX by clicking the *OK* button. Upon doing so the CRS Login Screen will then be presented. Thus, if you desire to immediately log back into the CRS interface, you can easily do so via this screen (if necessary, see paragraph 3.5.2).


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:43:34
UTC
OK
Cancel
Alert Mon:
Status

Wish to exit CRS Control Interface ?

Figure 103. Exit to UNIX Window

3.6.2.5. Maintenance Menu

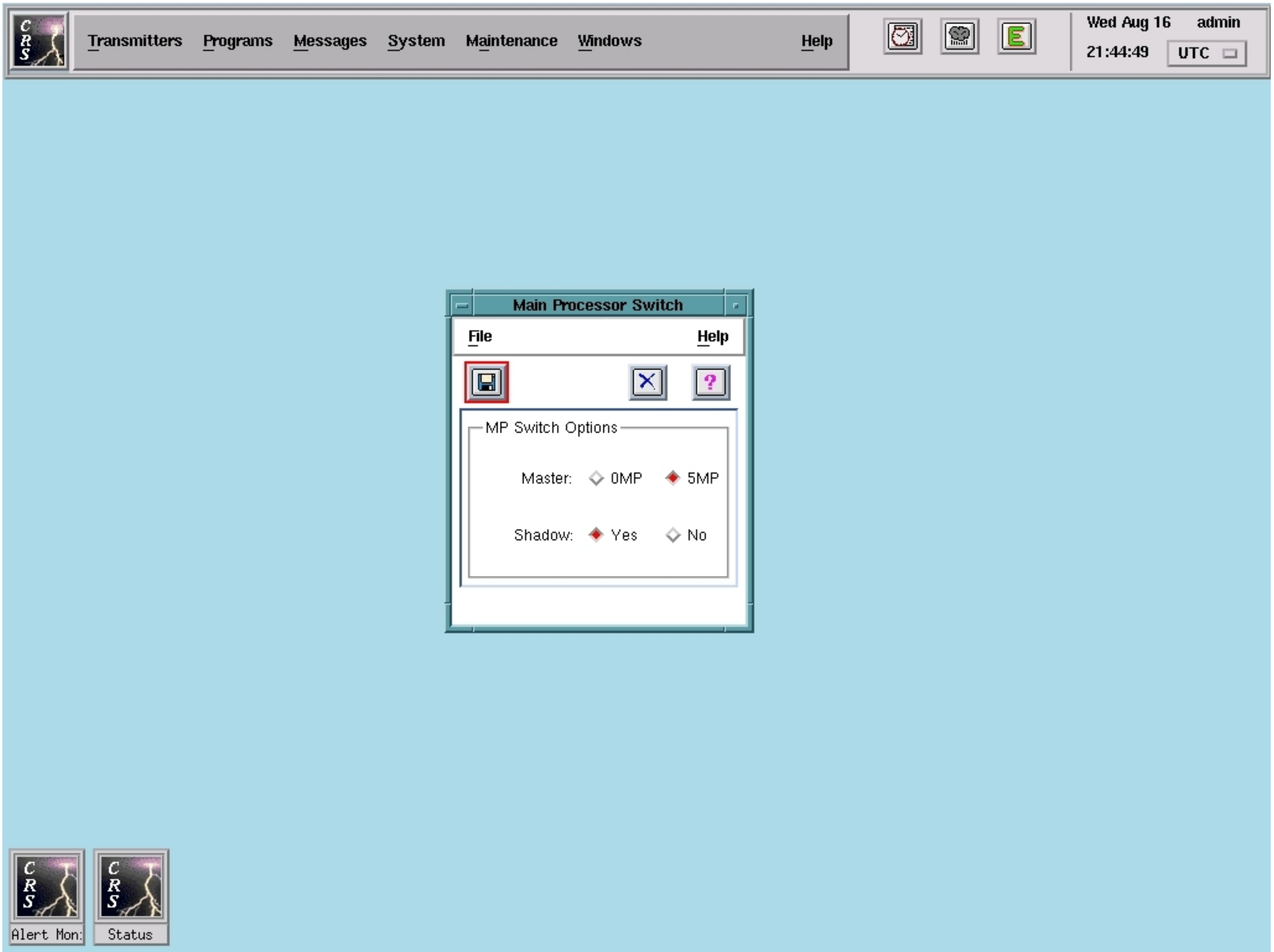
The **Maintenance** menu bar component features 12 submenu options, i.e., Main Processor Switch, Front-End Processor Switch, UNIX Shell, Date/Time Update, Activity Logs, Initiate/Terminate Logging, Reset Log Files, Site Configuration, Pronunciation Dictionaries, Word Pronunciation, Error Message Format, and Database Backup/Restore, which allow you to perform specific maintenance-related functions. These options are described below in paragraphs 3.6.2.5.1 through 3.6.2.5.12, respectively.

3.6.2.5.1. Main Processor Switch

This submenu option allows you to switch a Main Processor (MP) to Master/Shadow, disable or enable Shadowing (i.e., switch out/in the Shadow processor), or manually switch the Shadow to Master in the event the current Master experiences a failure condition that prevents you from using it to control CRS. To perform the option, click the **Maintenance** menu and then select "Main Processor Switch" (i.e., from the desired or appropriate MP). The ***Main Processor Switch*** window will then be presented (see Figure 104). (The window will display the inverse of the current situation, assuming that you want to effect this change in MP Master status, while also retaining the Shadowing feature.) To continue, perform "a.", "b.", "c.", or "d." below depending on the desired operation.

a. Switch Master - Retain Shadowing. If your intent is to switch the current Master (normally "0MP") to Shadow and the current Shadow (normally "5MP") to Master while at the same time retaining the Shadowing feature, then perform the following steps:

   1. Verify that the 5MP and Yes radio buttons are selected and then click the APPLY hotkey (in the hotkey menu bar). (*This can be done from either MP.*) The ***Wait For Autoswitch*** dialogue and the ***Message Monitor*** window will then be displayed to confirm the switch request (see Figure 105). At this point, you will have 15 seconds to cancel the request, as indicated via the "Autoswitch in *nn* seconds." timer (in the ***Wait For Autoswitch*** dialogue). Once the timer expires, the request to switch the MPs will subsequently be executed, the screens on both MPs will momentarily go blank, and then status messages will be displayed on both MPs.

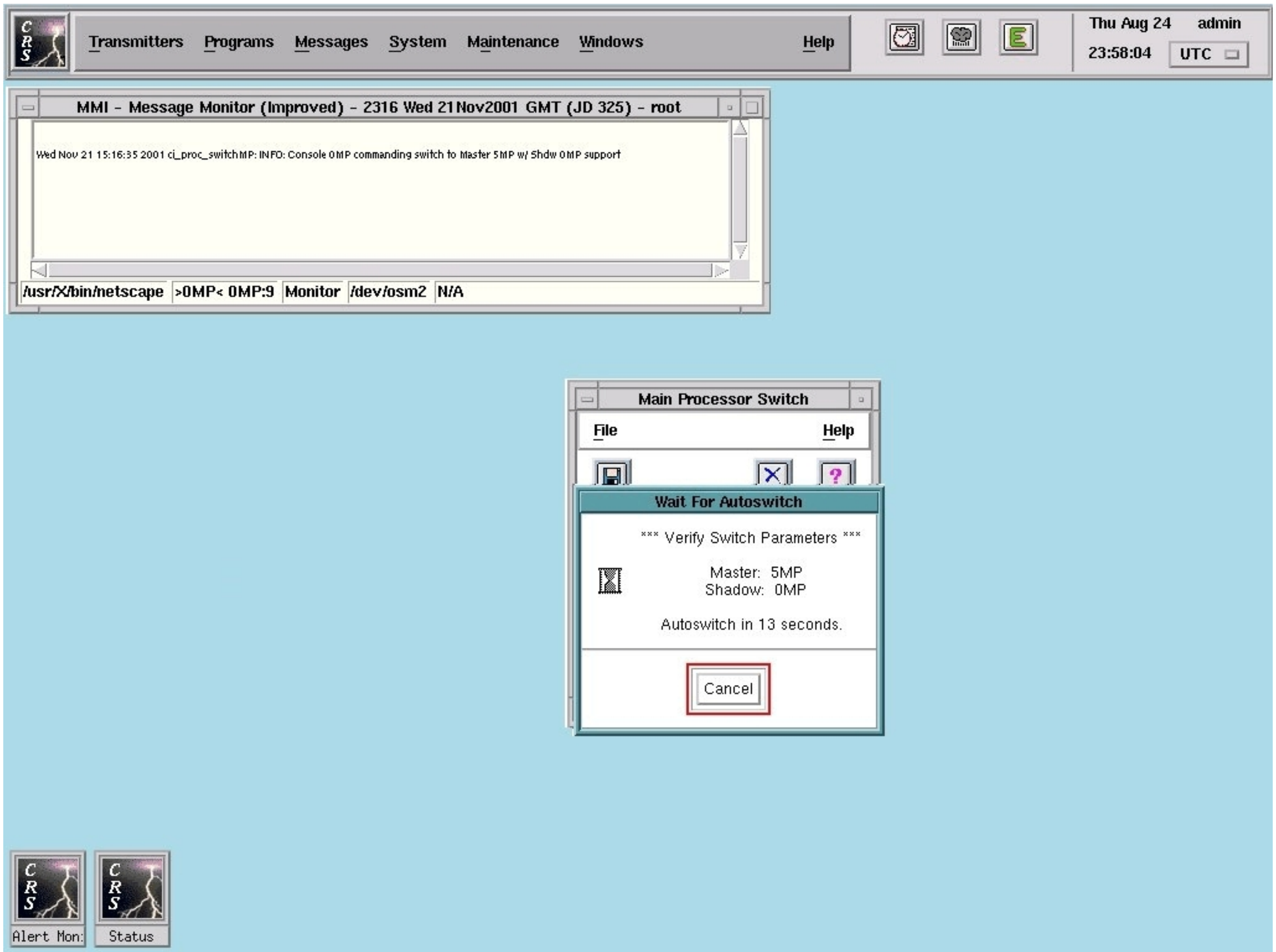

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:44:49
UTC
Main Processor Switch
File
Help
Alert Mon:
Status

MP Switch Options

Master: ○ 0MP ● 5MP

Shadow: ● Yes ○ No

Figure 104. Main Processor Switch Window


C R S
Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Aug 24
admin
23:58:04
UTC
MMI – Message Monitor (Improved) – 2316 Wed 21Nov2001 GMT (JD 325) – root
Main Processor Switch
File
Help
Wait For Autoswitch
Cancel
Alert Mon:
Status

```
Wed Nov 21 15:16:35 2001 ci_proc_switchMP: INFO: Console 0MP commanding switch to Master 5MP w/ Shdw 0MP support
```

/usr/X/bin/netscape | >0MP< 0MP:9 | Monitor | /dev/osm2 | N/A

*** Verify Switch Parameters ***

Master: 5MP
Shadow: 0MP

Autoswitch in 13 seconds.

Figure 105. Wait For Autoswitch Dialogue

2. When the CRS Login screens appear on the consoles (signaling that the switch has completed), log into CRS from both consoles. You will observe that both CRS Login screens will display 5MP as the new Master (or the inverse, of course, if you had switched 0MP back to Master and 5MP to Shadow). After logging in, you will also observe that the ***Status*** window on 5MP displays "Master Console" and the ***Status*** window on 0MP displays "Shadow Console".

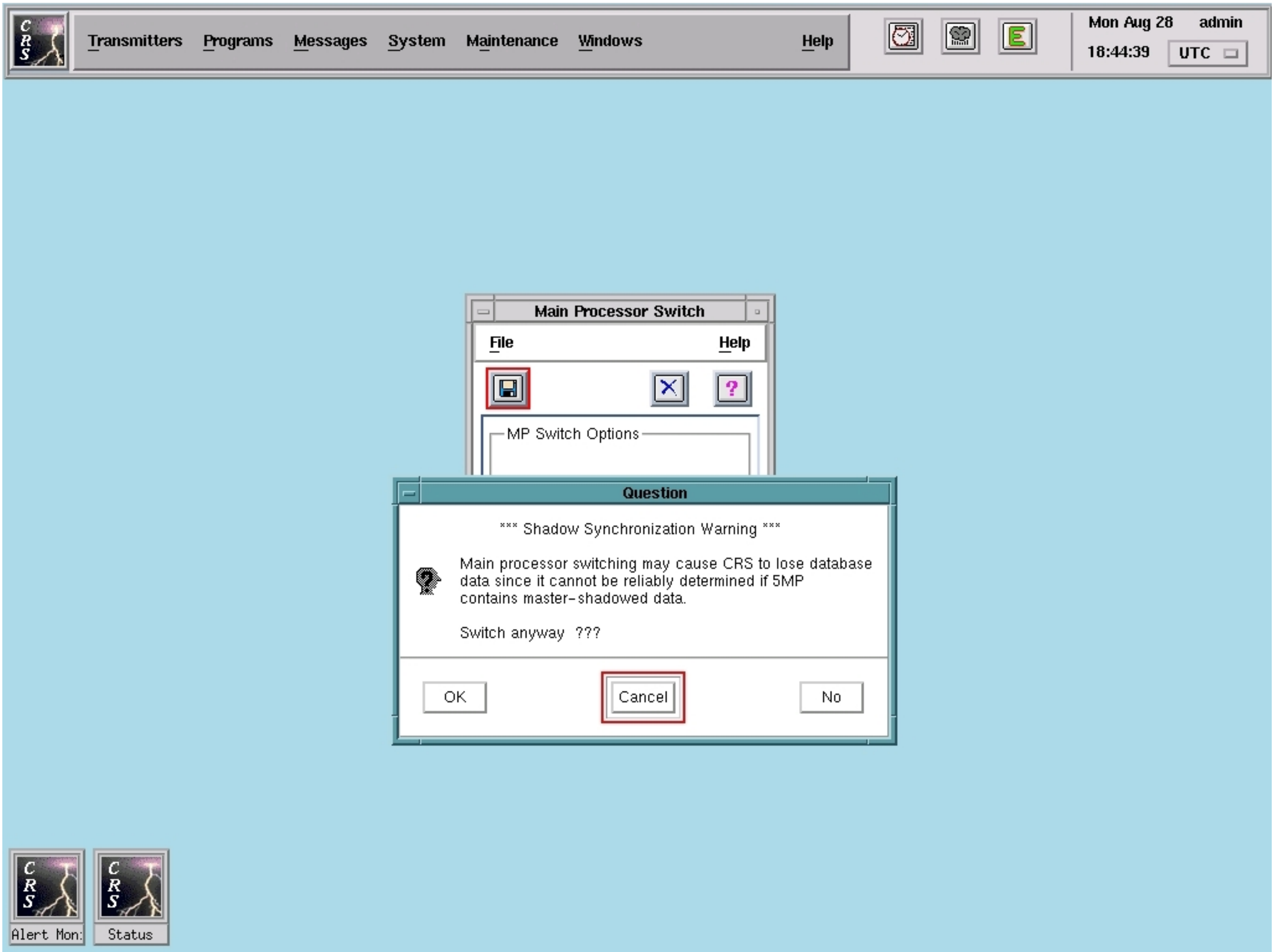
b. Disable Shadowing. If your intent is to disable Shadowing while at the same time switching the MPs, the operation is pretty much the same as that described under "a." above, the only difference being that you must click the No radio button (in the Shadow field) before clicking the APPLY hotkey. After the designated MP has become the new Master, the other MP will be disabled, allowing you to perform preventive/corrective maintenance on it as required. If, on the other hand, your intent is merely to disable Shadowing on say 5MP (again, the normal Shadow processor), perform the following steps:

1. Click the 0MP radio button to sustain it as the Master (thereby preventing an undesired MP switch), click the No radio button (in the Shadow field), and then click the APPLY hotkey. (*This can be done from either MP.*) The ***Wait For Autoswitch*** dialogue and the ***Message Monitor*** window will then be displayed to confirm the disable request (see Figure 99). At this point, you will have 15 seconds to cancel the request, as indicated via the "Autoswitch in *nn* seconds." timer (in the ***Wait For Autoswitch*** dialogue). Once the timer expires, the request to disable Shadowing will subsequently be executed, the screens on both MPs will momentarily go blank, and then status messages will be displayed on both MPs. After the operation has completed, the CRS Login screen will appear on both MPs.

2. Perform preventive/corrective maintenance tasks on the disabled Shadow MP as required.

c. Enable Shadowing. If your intent is to enable Shadowing, perform the following steps:

1. Click the appropriate MP radio button to sustain the current Master and then click the APPLY hotkey directly, since the Yes radio button (in the Shadow field) will already be selected. (*This can be done from either MP.*) The ***Shadow Synchronization Warning*** will then be displayed in the form of a ***Question*** dialogue (see Figure 106). (This is done to notify


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Aug 28
admin
18:44:39
UTC
Main Processor Switch
File
Help
MP Switch Options
Question
OK
Cancel
No
Alert Mon:
Status

*** Shadow Synchronization Warning ***

Main processor switching may cause CRS to lose database data since it cannot be reliably determined if 5MP contains master-shadowed data.

Switch anyway ???

Figure 106. Question Dialogue

you that the Master-Shadowed data can no longer be reliably verified. Consequently, if your intent is to make a previously disabled MP the Master, you **must** make it the Shadow first.) Click the *OK* button in the ***Question*** dialogue. The ***Wait For Autoswitch*** dialogue and the ***Message Monitor*** window will then be displayed to confirm the enable request (see Figure 99). At this point, you will have 15 seconds to cancel the request, as indicated via the "Autoswitch in *nn* seconds." timer (in the ***Wait For Autoswitch*** dialogue). Once the timer expires, the request to enable Shadowing will subsequently be executed, the screens on both MPs will momentarily go blank, and then status messages will be displayed on both MPs. After the operation has completed, the CRS Login screen will appear on both MPs.

2. Log into either or both MPs as necessary. If desired, change the Shadow MP to Master by performing the procedures described in "a." above.

d. Master Failure - Make Shadow Master. If your intent is to make the Shadow the Master because the current Master has experienced a failure condition rendering it ineffectual for controlling CRS, perform "1." or "2." below depending on whether the interface is useable on the Master MP:

1. CRS Interface Useable on Master MP. If this is the case, you'll need to perform the following substeps:

   - Switch the current Master to Shadow and also disable the Shadowing. To do this, follow the method described in the first sentence in "b." above. (*Again, this can be done from either MP depending, of course, on how the MP failure manifests itself.*)

   - After the operation has completed, perform corrective maintenance on the faulty MP as required. When finished, restore the MP as the Shadow first and then switch it to Master, if desired. To do this, perform the steps described in "c." above, making sure to click the appropriate MP radio button in order to sustain the current Master. You can then, if desired, restore the repaired MP to Master in accordance with the procedures described in "a." above.

2. CRS Interface Unavailable on Master MP - Gray Screen is Displayed. If this is the case, you'll need to perform the following substeps:

   - On the Shadow MP, press Alt, Sys Rq (System Request), and then type an "n". The screen will momentarily go blank and then the Console Login prompt will appear. (If for some reason the Console Login doesn't appear, hit the return key. If a user is already logged in, type "exit" followed by a return, until the Console Login appears.)

   - Type "switchmp" at the prompt and supply your password when prompted. This will effect the MP switch, causing the Shadow to become the Master. When the switch has completed, the CRS Login screen will appear on the new Master, and CRS will be restarted on it if CRS was running prior to the switch. If it wasn't running, restart CRS via the Start System submenu, i.e., after logging back into CRS.

   - Perform the required corrective maintenance on the failed MP. When finished, make sure that you designate the repaired MP as the Shadow (from the Master and via the ***Main Processor Switch*** window) before attempting to log into the CRS interface from the repaired MP. You can then, if desired, restore the repaired MP to Master in accordance with the procedures described in "a." above.

3.6.2.5.2. Front-End Processor Switch

This submenu option allows you to switch a Front-End Processor (FEP) in or out[12]. To perform the option, click the **Maintenance** menu and then select "Front-End Processor Switch". The ***Front-End Processor Switch*** window will then be presented (see Figure 107). To continue, perform the following steps:

a. Select the desired FEP.

b. Select the desired processor state (i.e., In or Out). If you select "Out", the Yes radio button in the Backup field will by default be set (assuming that you want to switch in the backup FEP). Thus, if you are switching out (or shutting down) a FEP and you don't want to switch in the backup FEP, then click the No radio button (in the Backup field).

Please **note** that if you are switching a FEP in after it has been out, then there is no Backup choice to make.

c. Click the APPLY hotkey (in the hotkey menu bar). The request (to switch in or out the FEP) will subsequently be executed, and you will receive confirmation to this effect in the status display area.

---

[12] *This submenu option is available to the CRS system administrator and maintenance technician only. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*

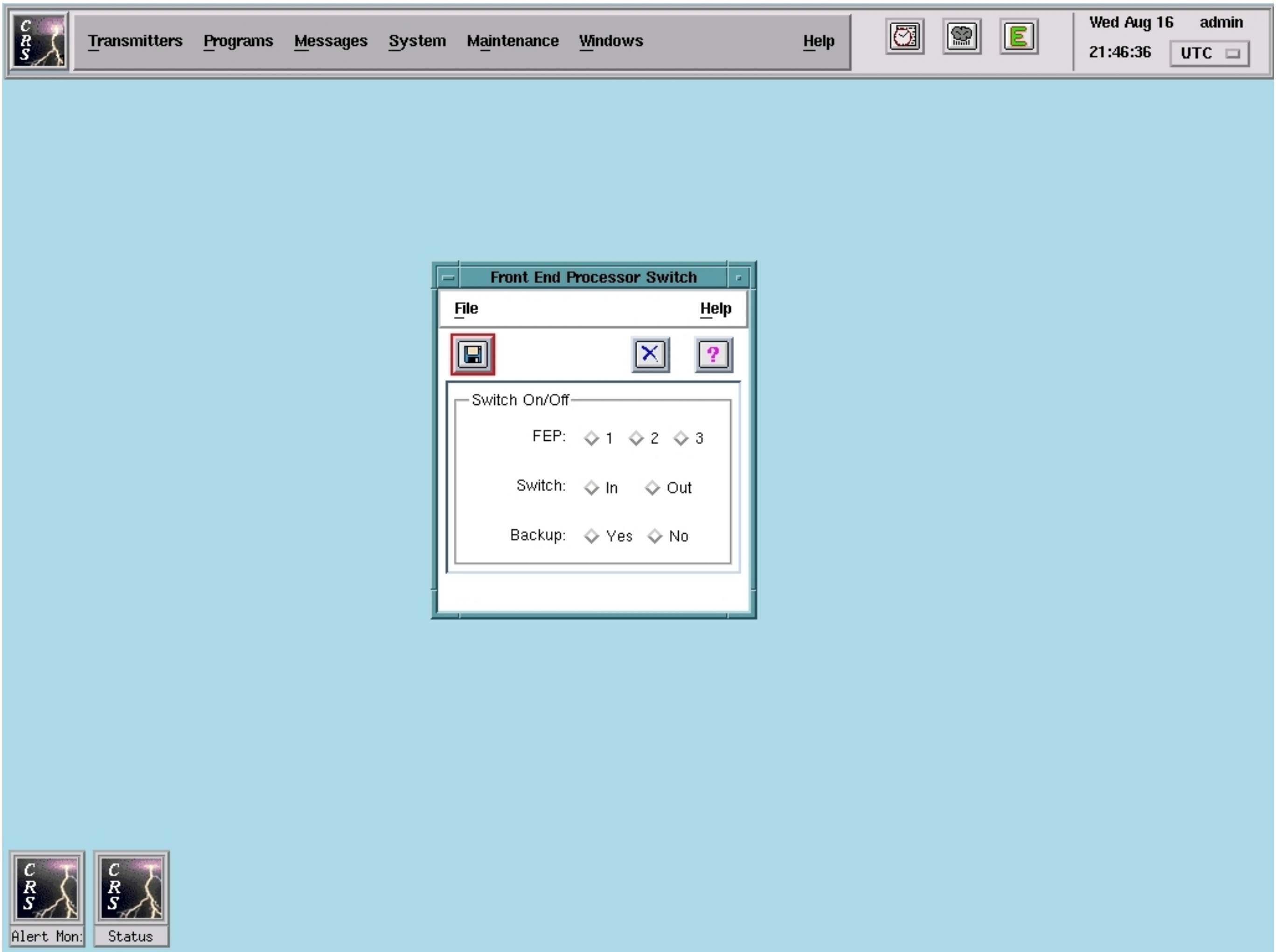

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:46:36
UTC
Front End Processor Switch
File
Help
Switch On/Off
FEP: ◇ 1 ◇ 2 ◇ 3
Switch: ◇ In ◇ Out
Backup: ◇ Yes ◇ No
Alert Mon:
Status

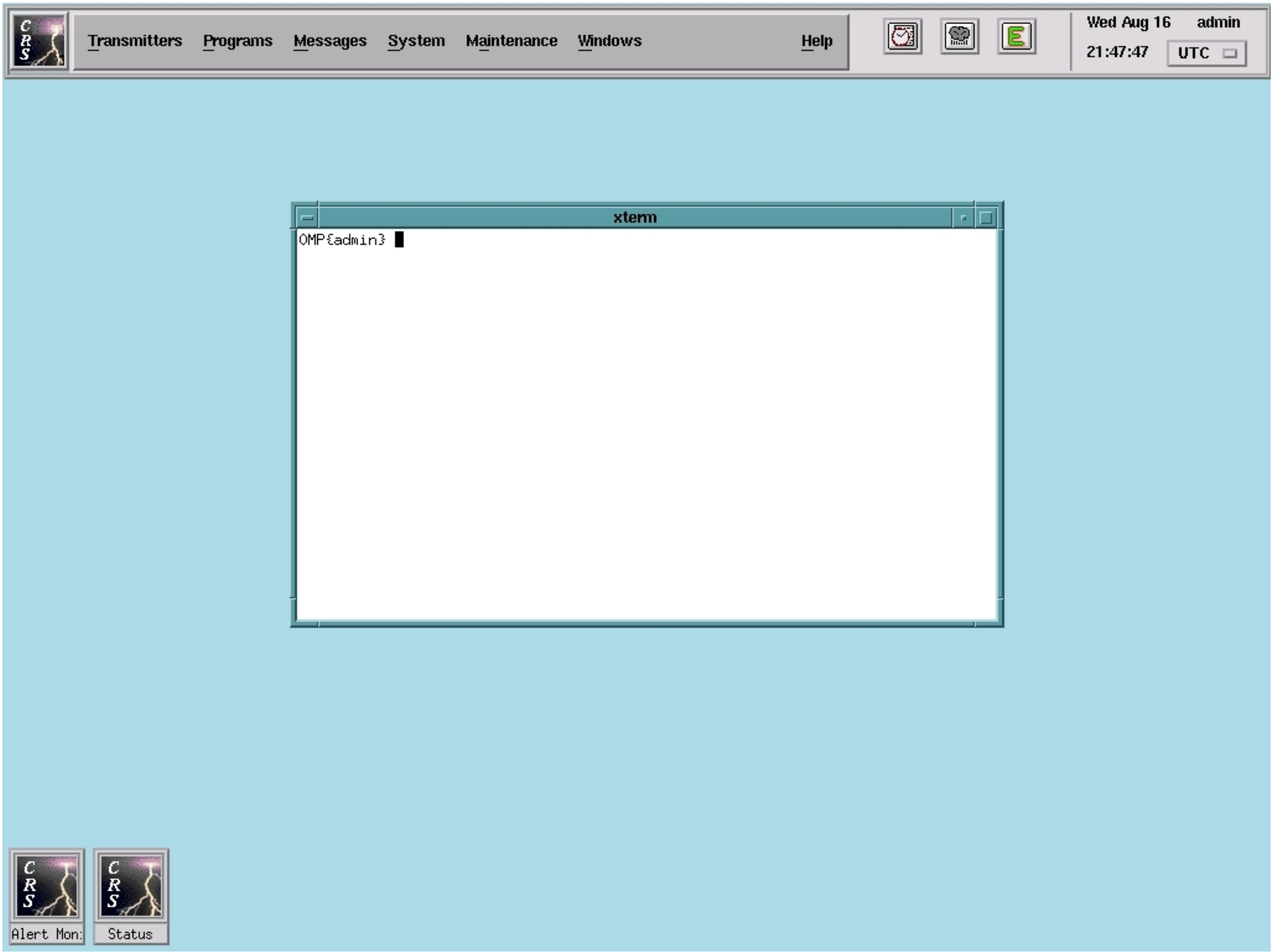
Figure 107. Front-End Processor Switch Window

3.6.2.5.3. UNIX Shell

This submenu option allows you to gain access to a UNIX shell in order to execute UNIX commands[13]. To perform the option, click the **Maintenance** menu and then select "UNIX Shell". A UNIX Shell will then be presented (see Figure 108), allowing the execution of UNIX commands as required to support system administration/maintenance activities.

---

[13] *This submenu option is available to the CRS system administrator only. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:47:47
UTC
xterm
Alert Mon:
Status

```
OMP{admin}
```

Figure 108. UNIX Shell

3.6.2.5.4. Date/Time Update

This submenu option allows you to manually update CRS system date/time or to automatically update CRS system date/time (based on AWIPS date/time).[14] To perform the option, click the **Maintenance** menu and then select "Date/Time Update". The ***Date/Time Update*** window will then be presented (see Figure 109). To continue, perform "a." or "b." below depending on the desired operation.

a. Manually Update CRS Date/Time. If your intent is to manually update CRS system date/time, then perform the following steps:

  1. Enter the desired date/time value in the Date/Time field in the form:

     YYMMDDHHmm

     where "YY" indicates the year (i.e., 00 to 99), "MM" indicates the month (i.e., 01 to 12), "DD" indicates the day (i.e., 01 to 31), "HH" indicates the hour (i.e., 00 to 23), and "mm" indicates the minute (i.e., 00 to 59).

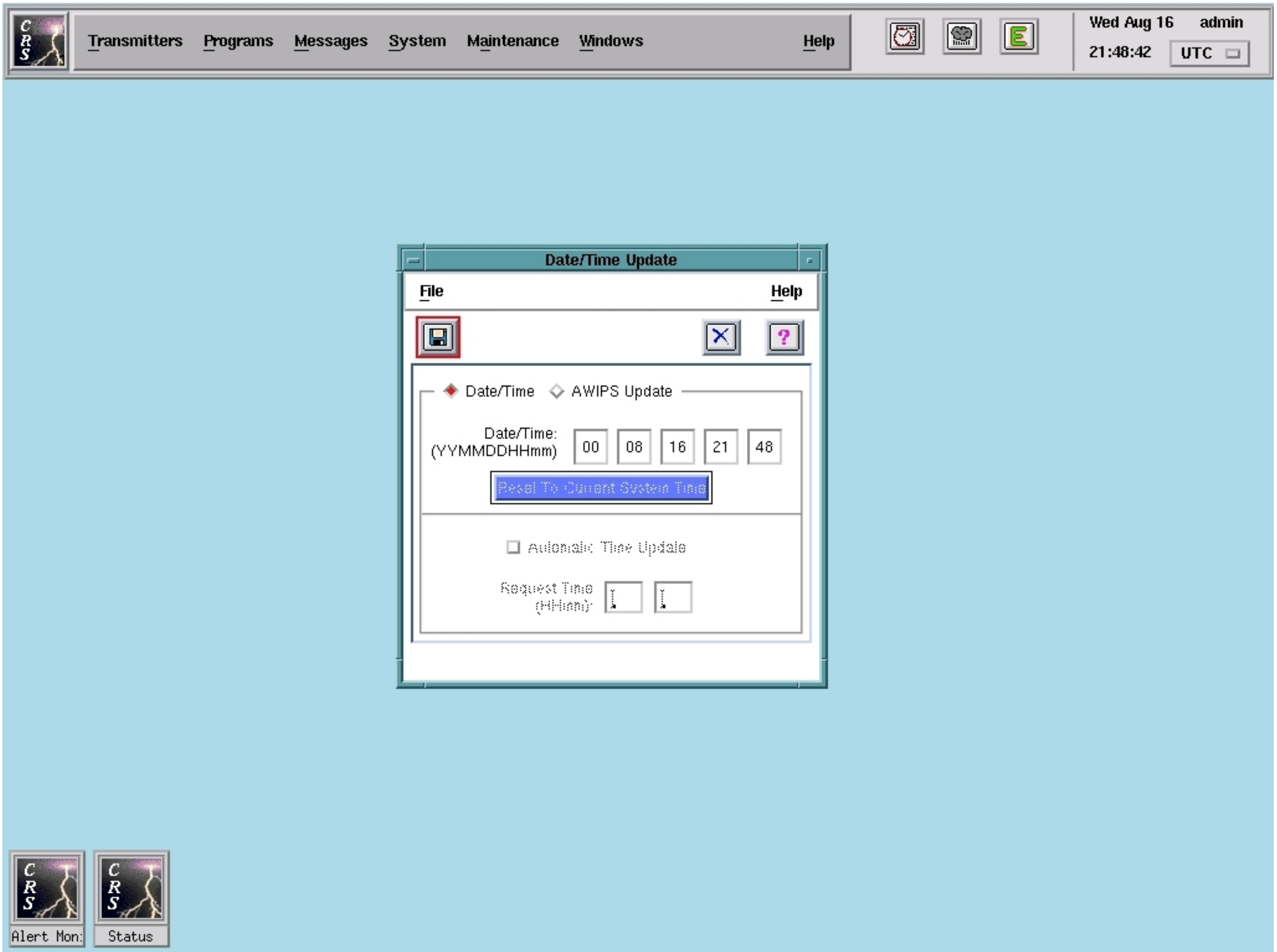
     Please **note** that the *Reset to Current System Time* button will become available to you upon entering a new value in any of the Date/Time fields, and it (as its name implies) allows you to change the date/time back to the current system date/time, if so desired.

  2. Click the APPLY hotkey (in the hotkey menu bar). The date/time update will subsequently be applied, and you will receive confirmation to this effect in the status display area.

     Please **note** that if you are changing the date/time backwards, you will upon clicking the APPLY hotkey receive an information window informing you that you must log off CRS to effect the date/time update. You can then proceed to log off either manually via the Exit to UNIX submenu option (if necessary, see paragraph 3.6.2.4.9), or automatically via the *OK* button provided in the information window.

---

[14] *This submenu option is available to the CRS system administrator only. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*


CRS
Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Date/Time Update
File
Help
Reset To Current System Time
Alert Mon:
Status

Wed Aug 16 admin
21:48:42 UTC

● Date/Time ○ AWIPS Update

Date/Time: (YYMMDDHHmm) 00 08 16 21 48

☐ Automatic Time Update

Request Time (HHmm):

Figure 109. Date/Time Update Window ("Date/Time" Selected)

b. Automatically Update CRS Date/Time based on AWIPS Date/Time. If your intent is to automatically update CRS date/time based on AWIPS date/time, then perform the following steps:

1. Select the AWIPS Update option by clicking the radio button to the left of the field. The Automatic Time Update and Request Time fields (at the bottom of the ***Date/Time Update*** window) will become available for selection/input (see Figure 110).

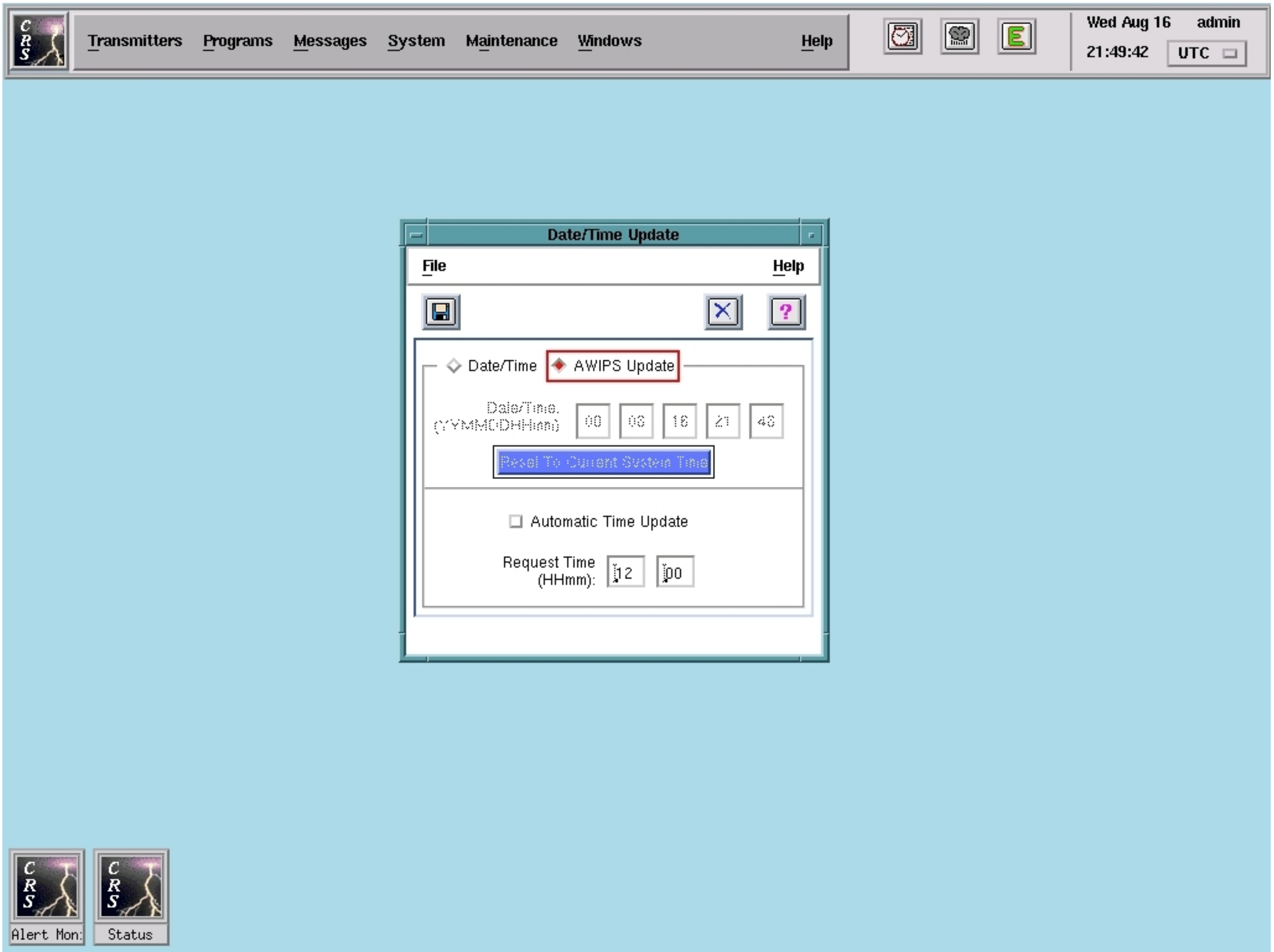
2. Select Automatic Time Update by clicking the toggle button to the left of the field.

3. Enter the desired request time in the Request Time field in the form:

   Hhmm

   where "HH" indicates the hour (i.e., 01 to 23) and "mm" indicates the minute (i.e., 01 to 59). Please **note** that this time value once entered represents the time that CRS will request the date/time from AWIPS (for automatic update of CRS date/time).

4. Click the APPLY hotkey (in the hotkey menu bar). The date/time update will subsequently be applied, and you will receive confirmation to this effect in the status display area.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:49:42
UTC
Date/Time Update
File
Help
Reset To Current System Time
Alert Mon:
Status

○ Date/Time ● AWIPS Update

Date/Time. (YYMMDDHHmm): 00 08 16 21 48

☐ Automatic Time Update

Request Time (HHmm): 12 00

Figure 110. Date/Time Update Window ("AWIPS Update" Selected)

3.6.2.5.5. Activity Logs

This submenu option allows you to display, print, or copy CRS activity logs. To perform the option, click the **Maintenance** menu and then select "Activity Logs". The ***Activity Logs*** window will then be presented (see Figure 111), whereupon you can then display any of the activity logs, including the error logs (system errors within CRS) and the transmit logs (message transaction logs). To continue, perform the following steps:

a. Select the desired log type (i.e., Error or Transmit).

b. Select the desired retrieval filtering condition (i.e., All or Date/Time). If you selected All, then proceed to Step c. If you selected Date/Time, then perform the following substeps:

   1. Enter the start date in the From Date/Time field in the form:

      YYMMDDhhmm

      where "YY" indicates the year (i.e., 00 through 99), "MM" indicates the month (i.e., 01 to 12), "DD" indicates the day (i.e., 01 through 31), "hh" indicates the hour (i.e., 01 to 23), and "mm" indicates the minute (i.e., 01 to 59).

   2. Enter the end date in the To Date/Time field in the same form as the start date (i.e., YYMMDDhhmm).

c. If desired, narrow your search or retrieval by entering a search string in the input field associated with the *Search* button. Also, if desired, select the toggle associated with the Case Sensitive field.

d. Click the APPLY hotkey (in the hotkey menu bar). The log information will then be retrieved and displayed in the Log List display window. If necessary, use the vertical scrollbars to scroll up and down through the log entries.

Once the information is displayed, if you want to find (or search for) a particular log entry, click the arrow button to the right of the search field. The search field is replaced with the *Find* button and associated fields (see Figure 112). (The arrow button can be used again to redisplay the *Search* button and associated fields, although these are provided for use only during the initial retrieval operation.) Enter the desired search string in the input field, specify the desired search direction ("Forward" is the default), select the toggle associated with the Case Sensitive field (i.e., if applicable), and click the *Find* button.

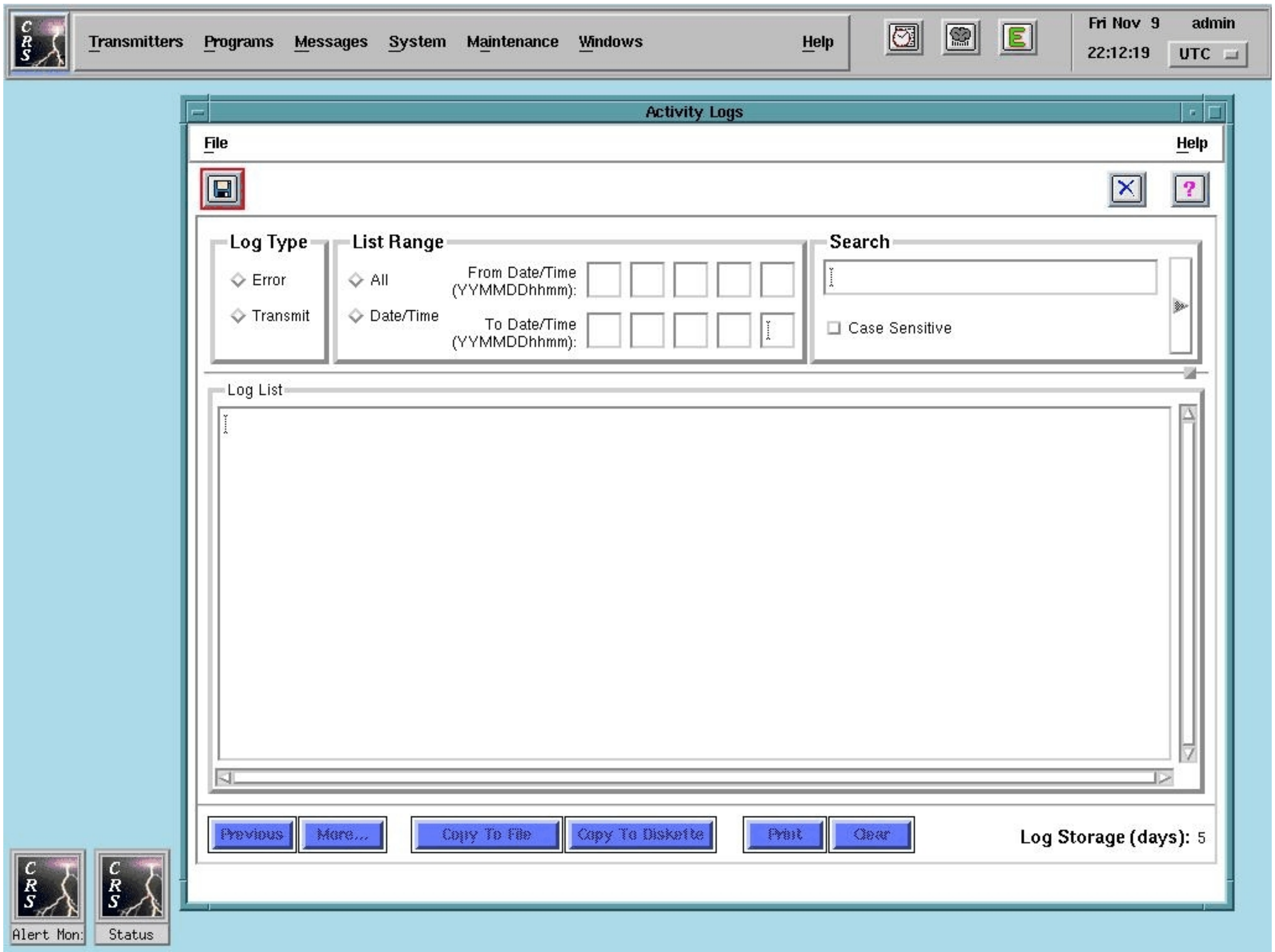
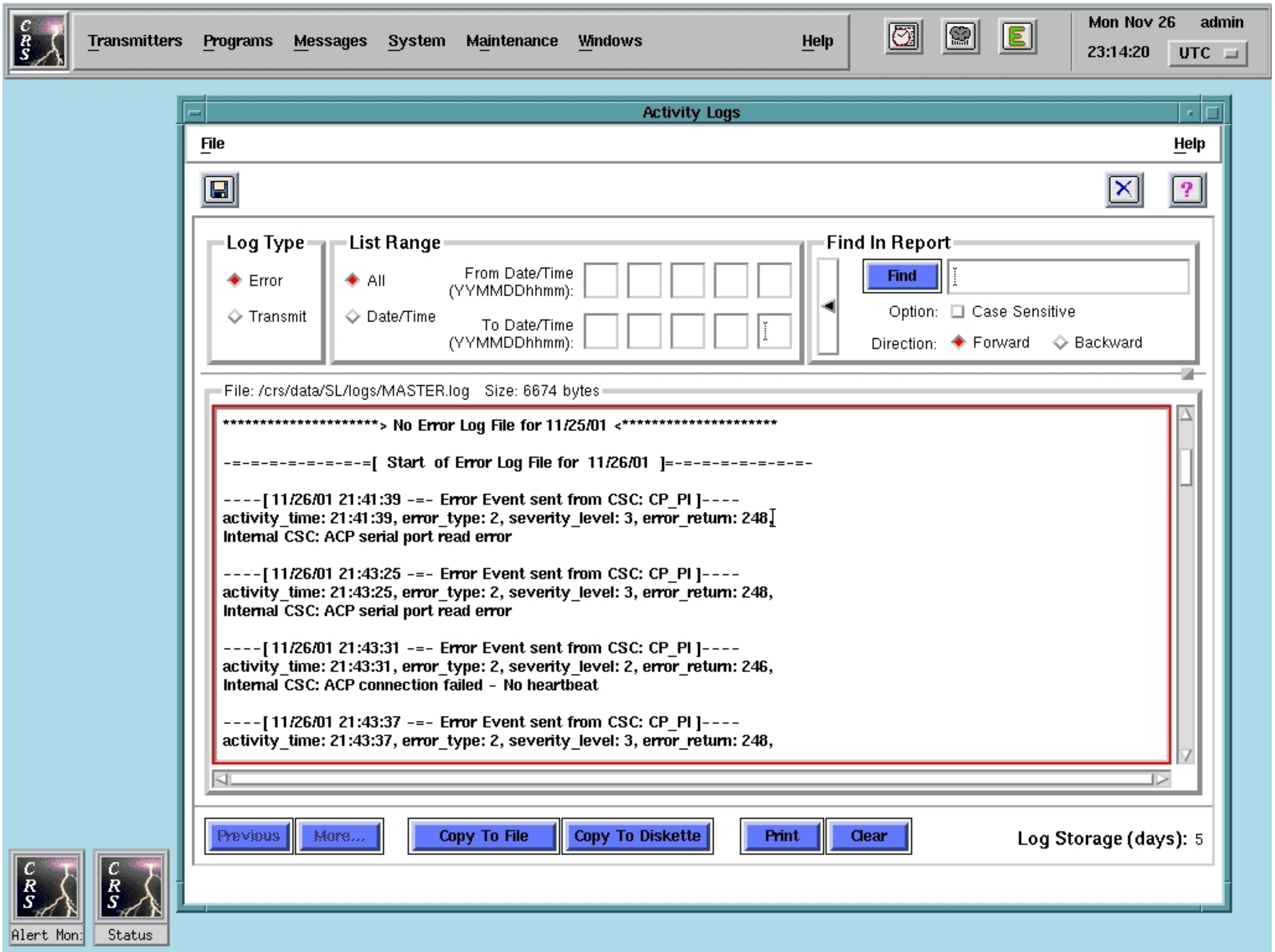

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
admin
22:12:19
UTC
Activity Logs
File
Help
Log Type
Error
Transmit
List Range
All
Date/Time
From Date/Time (YYMMDDhhmm):
To Date/Time (YYMMDDhhmm):
Search
Case Sensitive
Log List
Previous
More...
Copy To File
Copy To Diskette
Print
Clear
Log Storage (days): 5
Alert Mon:
Status

Figure 111. Activity Logs Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Nov 26
admin
23:14:20
UTC
Activity Logs
File
Help
Log Type
List Range
From Date/Time (YYMMDDhhmm):
To Date/Time (YYMMDDhhmm):
Find In Report
Find
Option:
☐ Case Sensitive
◇ Transmit
◇ Date/Time
◇ Backward
Previous
More...
Copy To File
Copy To Diskette
Print
Clear
Alert Mon:
Status

Log Type: ◆ Error

List Range: ◆ All

Direction: ◆ Forward

File: /crs/data/SL/logs/MASTER.log   Size: 6674 bytes

```
*********************> No Error Log File for 11/25/01 <*********************

-=-=-=-=-=-=-=[  Start  of Error Log File for  11/26/01  ]=-=-=-=-=-=-=-

----[ 11/26/01 21:41:39 -=- Error Event sent from CSC: CP_PI ]----
activity_time: 21:41:39, error_type: 2, severity_level: 3, error_return: 248,
Internal CSC: ACP serial port read error

----[ 11/26/01 21:43:25 -=- Error Event sent from CSC: CP_PI ]----
activity_time: 21:43:25, error_type: 2, severity_level: 3, error_return: 248,
Internal CSC: ACP serial port read error

----[ 11/26/01 21:43:31 -=- Error Event sent from CSC: CP_PI ]----
activity_time: 21:43:31, error_type: 2, severity_level: 2, error_return: 246,
Internal CSC: ACP connection failed - No heartbeat

----[ 11/26/01 21:43:37 -=- Error Event sent from CSC: CP_PI ]----
activity_time: 21:43:37, error_type: 2, severity_level: 3, error_return: 248,
```

Log Storage (days): 5

Figure 112. Activity Logs Window - *Find* Enabled

The *Previous, More...*, *Copy To File, Copy To Diskette*, *Print*, and *Clear* buttons (in the bottom of the ***Activity Logs*** window) are provided to allow you to perform these implied operations. That is, to obtain additional or previous display information (i.e., 500 Kbytes' worth), merely click the *More...* or *Previous* buttons, respectively. To copy the retrieved log to a file, merely click the *Copy To File* button. To copy the retrieved log to diskette, merely insert a floppy in the disk drive and click the *Copy To Diskette* button. To print the retrieved log information, merely click the *Print* button. To clear the retrieved log information from the display window, merely click the *Clear* button.

The control handle (directly above the upper right-hand corner of the Log List display area) is provided to allow you to expand the display area. To do this, merely click on the handle and drag it in an upward fashion.

The Log Storage field (in the bottom right-hand corner of the window) indicates the number of days that the error and transmit logs will be maintained before purging. This is a site-configurable parameter and thus it is "display only" and can only be changed via the Site Configuration submenu (see paragraph 3.6.2.5.8).

3.6.2.5.6. Initiate/Terminate Logging

This submenu option allows you to initiate or terminate CRS activity logging.[15] To perform the option, click the **Maintenance** menu and then select "Initiate/Terminate Logging". The ***Log Initiate/Terminate*** window will then be presented (see Figure 113). To continue, perform the following steps:

a. Select the desired operation (i.e., Initiate Activity Logging or Terminate Activity Logging).

b. Click the APPLY hotkey (in the hotkey menu bar). The request (to initiate or terminate logging) will subsequently be executed, and you will receive confirmation to this effect in the status display area.

---

[15] *This submenu option is available to the CRS system administrator only. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*

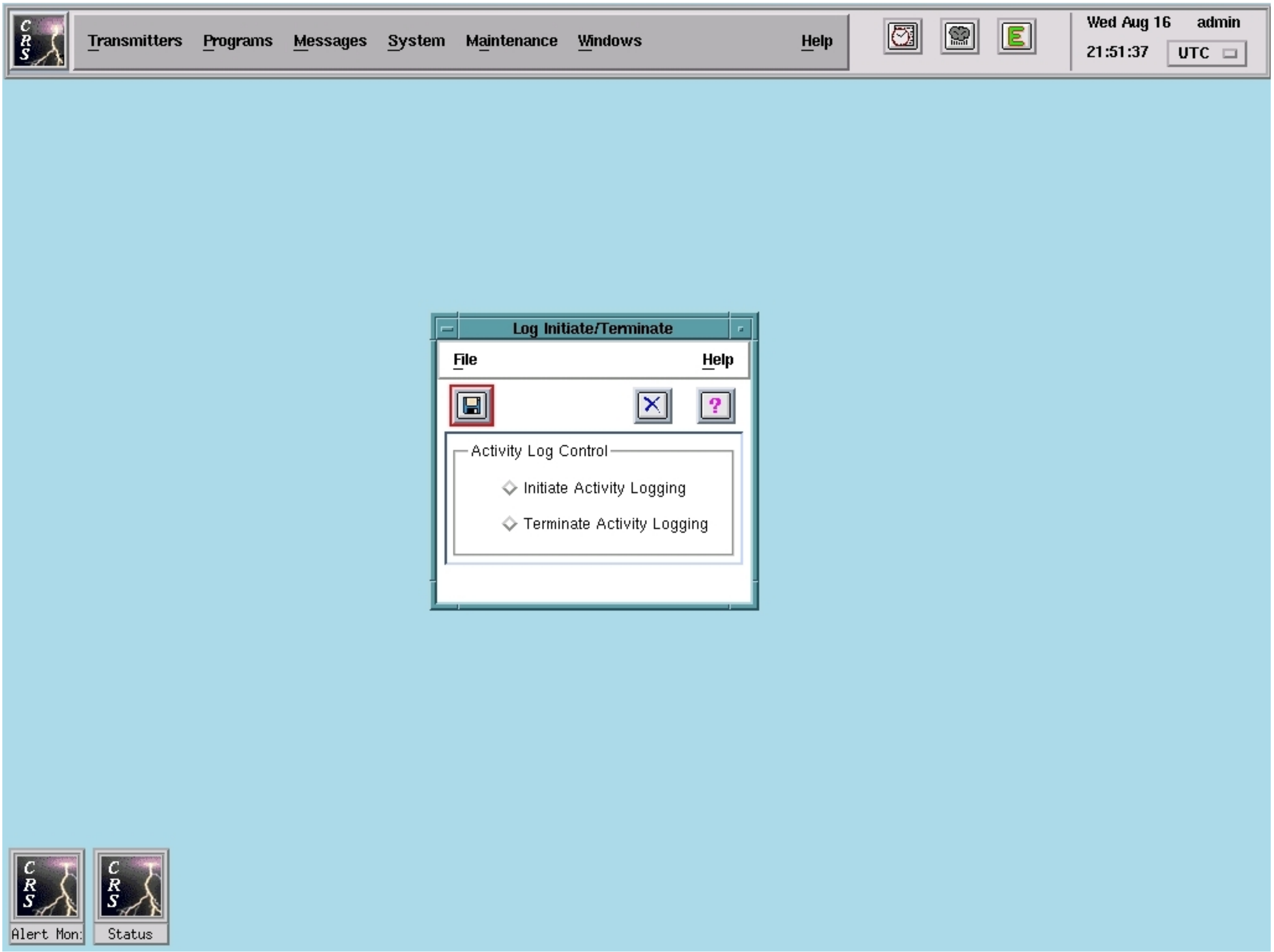

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:51:37
UTC
Log Initiate/Terminate
File
Help
Activity Log Control
Initiate Activity Logging
Terminate Activity Logging
Alert Mon:
Status

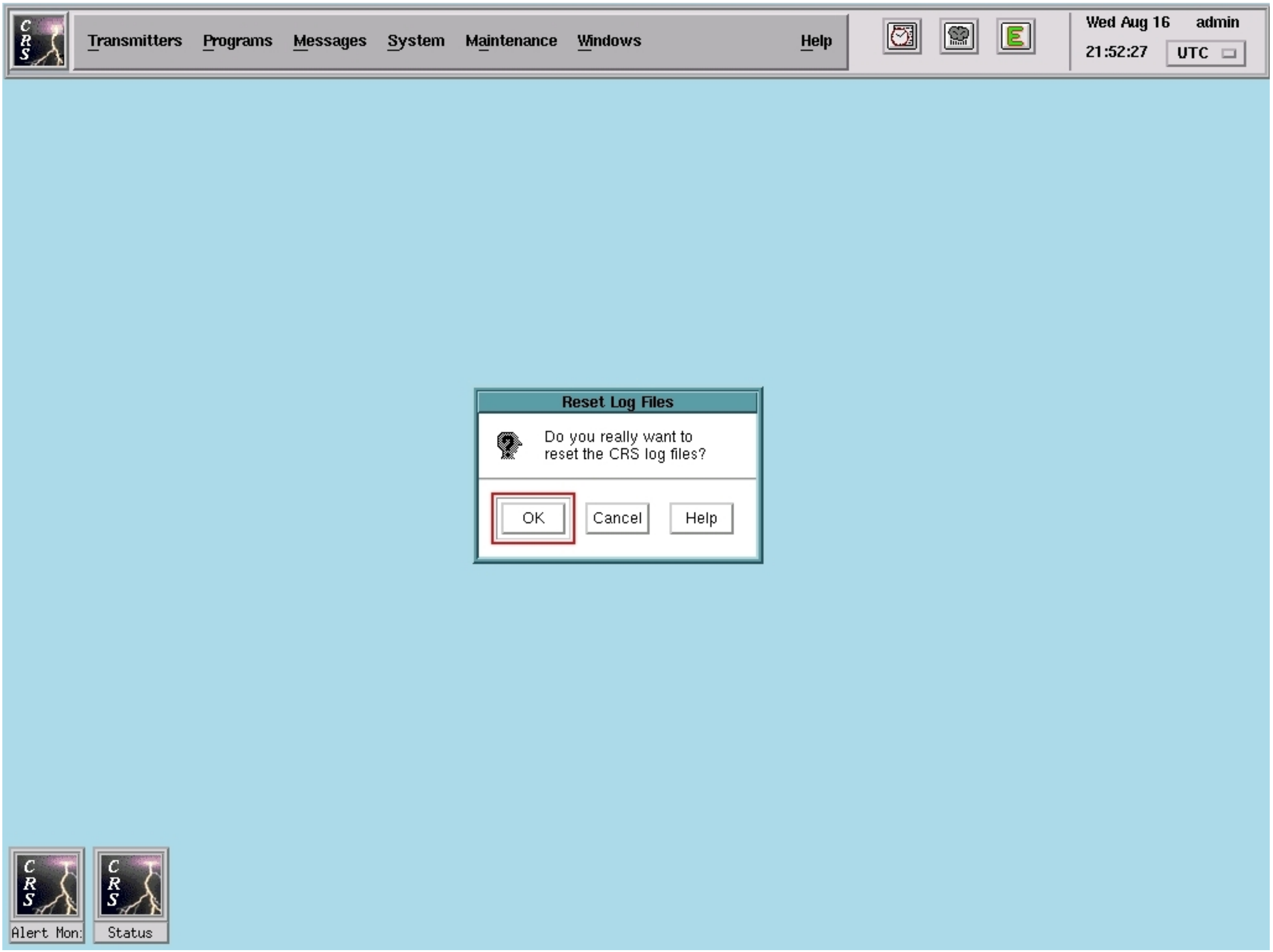
Figure 113. Initiate/Terminate Logging Window

3.6.2.5.7. Reset Log Files

This submenu option allows you to reset the CRS log files.[16] To perform the option, click the **Maintenance** menu and then select "Reset Log Files". The ***Reset Log Files*** window will then be presented (see Figure 114), whereupon you can reset the log files by clicking the *OK* button. Please **note** that resetting the log files means that they will be "cleared" of any previous log data.

---

[16] *This submenu option is available to the CRS system administrator only. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:52:27
UTC
Alert Mon:
Status

Reset Log Files

Do you really want to reset the CRS log files?

OK
Cancel
Help

Figure 114. Reset Log Files Window

3.6.2.5.8. Site Configuration

This submenu option allows you to view or configure CRS site parameters.[17] To perform the option, click the **Maintenance** menu and then select "Site Configuration". The ***Site Configuration*** window will then be presented (see Figure 115), displaying AFOS parameters. You will now be free to view/configure these parameters, or use the *Processors*, *Channels*, *ROAMS*, *ROAMS Port*, *Printer Port*, *Peripherals*, and *Interface* tabs to view and configure other site parameters. (When selecting or "clicking" tabs, you will observe that both the tab and the display area will be highlighted in the same color and that the display area will contain only those parameters unique to the selected tab and operation.) To continue, perform "a.", "b.", "c.", "d.", "e.", "f.", "g.", and/or "h." below depending on the desired operation.

a. View/Configure AFOS/AWIPS Parameters. To view/configure AFOS/AWIPS parameters, perform the following steps.

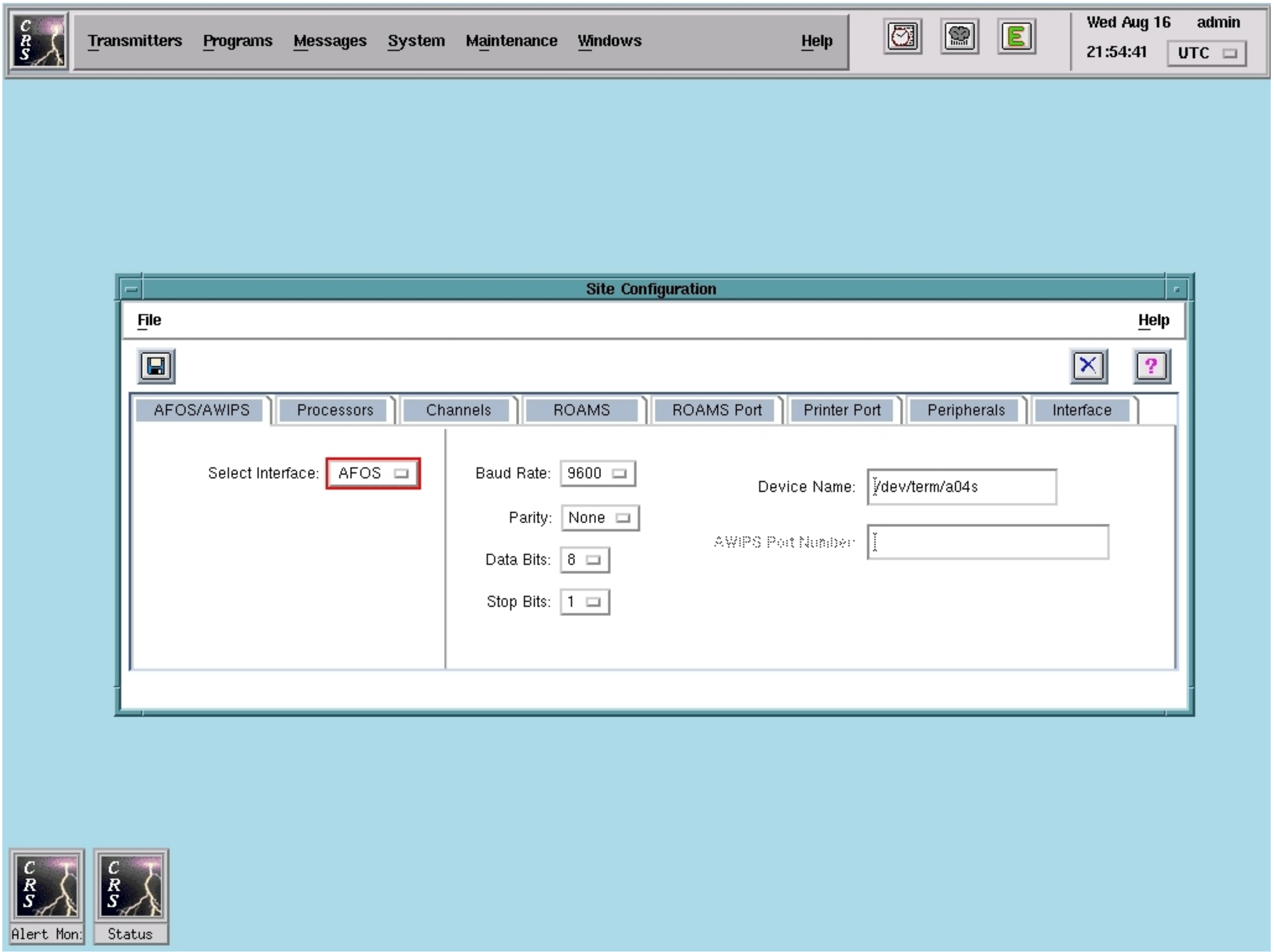
1. Access the ***Site Configuration*** window, i.e., if you haven't already done so, by performing the steps described above. (As mentioned above, the ***Site Configuration*** window will by default display AFOS parameters, i.e., the *AFOS/AWIPS* tab will be selected, and the AWIPS option will be selected in the Select Interface field.) Upon reaching the ***Site Configuration*** window, you can then view/configure AFOS parameters, or you can select the AWIPS option (in the Select Interface field) and view/configure AWIPS parameters (see Figure 116). AFOS and AWIPS parameters are as follows:

AFOS Parameters

- Baud Rate (i.e., 1200, 2400, 4800, 9600). To select, click the option button to the right of the field and then select the desired baud rate from the option list.
- Parity (i.e., even, odd, none). To select, click the option button to the right of the field and then select the desired parity from the option list.
- Data Bits (i.e., 7, 8). To select, click the option button to the right of the field and then select the desired data bit from the option list.

---

[17] *Site operators will be able to display but not configure site parameters. Only the CRS system administrator will be able to configure these parameters. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:54:41
UTC
Site Configuration
File
Help
AFOS/AWIPS
Processors
Channels
ROAMS
ROAMS Port
Printer Port
Peripherals
Interface
Alert Mon:
Status

Select Interface: AFOS

Baud Rate: 9600

Parity: None

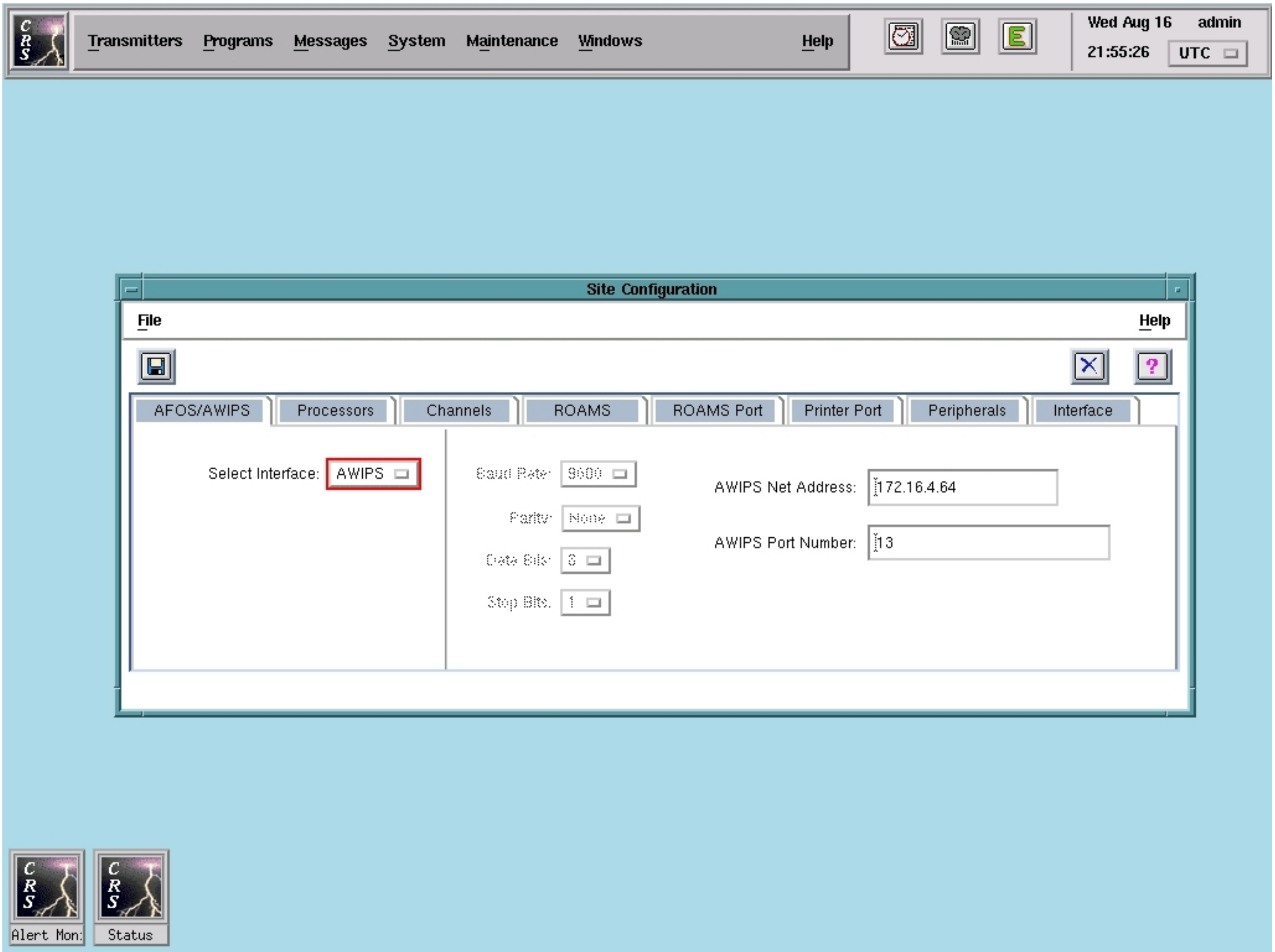
Data Bits: 8

Stop Bits: 1

Device Name: /dev/term/a04s

AWIPS Port Number:

Figure 115. Site Configuration Window (AFOS Selected)


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:55:26
UTC
Site Configuration
File
Help
AFOS/AWIPS
Processors
Channels
ROAMS
ROAMS Port
Printer Port
Peripherals
Interface
Alert Mon:
Status

Select Interface: AWIPS
Baud Rate: 9600
Parity: None
Data Bits: 8
Stop Bits: 1
AWIPS Net Address: 172.16.4.64
AWIPS Port Number: 13

Figure 116. Site Configuration Window (AWIPS Selected)

- Stop Bits (i.e., 1, 2). To select, click the option button to the right of the field and then select the desired stop bit from the option list.

- Device Name. To specify, enter the device name via the keyboard. This field will accept up to 16 ASCII characters.

AWIPS Parameters

- AWIPS Net Address (i.e., the AWIPS network Ethernet address). This field is "display only".

- AWIPS Port Number (i.e., the AWIPS device port number). To specify, enter the port number via the keyboard. This field will accept up to 9 ASCII digits.

2. Click the APPLY hotkey (in the hotkey menu bar), i.e., if you have configured AFOS or AWIPS parameters. The parameters will subsequently be saved, and you will receive confirmation to this effect in the status display area. Then, exit the window or, if desired, configure other site parameters in accordance with the procedures described herein for those particular parameters.

b. View Processor Parameters[18]. To view processor parameters, perform the following steps:

1. Click the *Processors* tab. The ***Site Configuration*** window will then be updated to reflect processor parameters (see Figure 117).

2. To view parameters for a processor, click the radio button to the left of the desired processor number (i.e., 0, 1, 2, 3, 4, 5). The following parameters will be updated to reflect those values previously specified for the selected processor:

   - Logical Function (i.e., Master MP, FEP 1, FEP 2, FEP 3, Backup, Shadow MP, Not Configured).

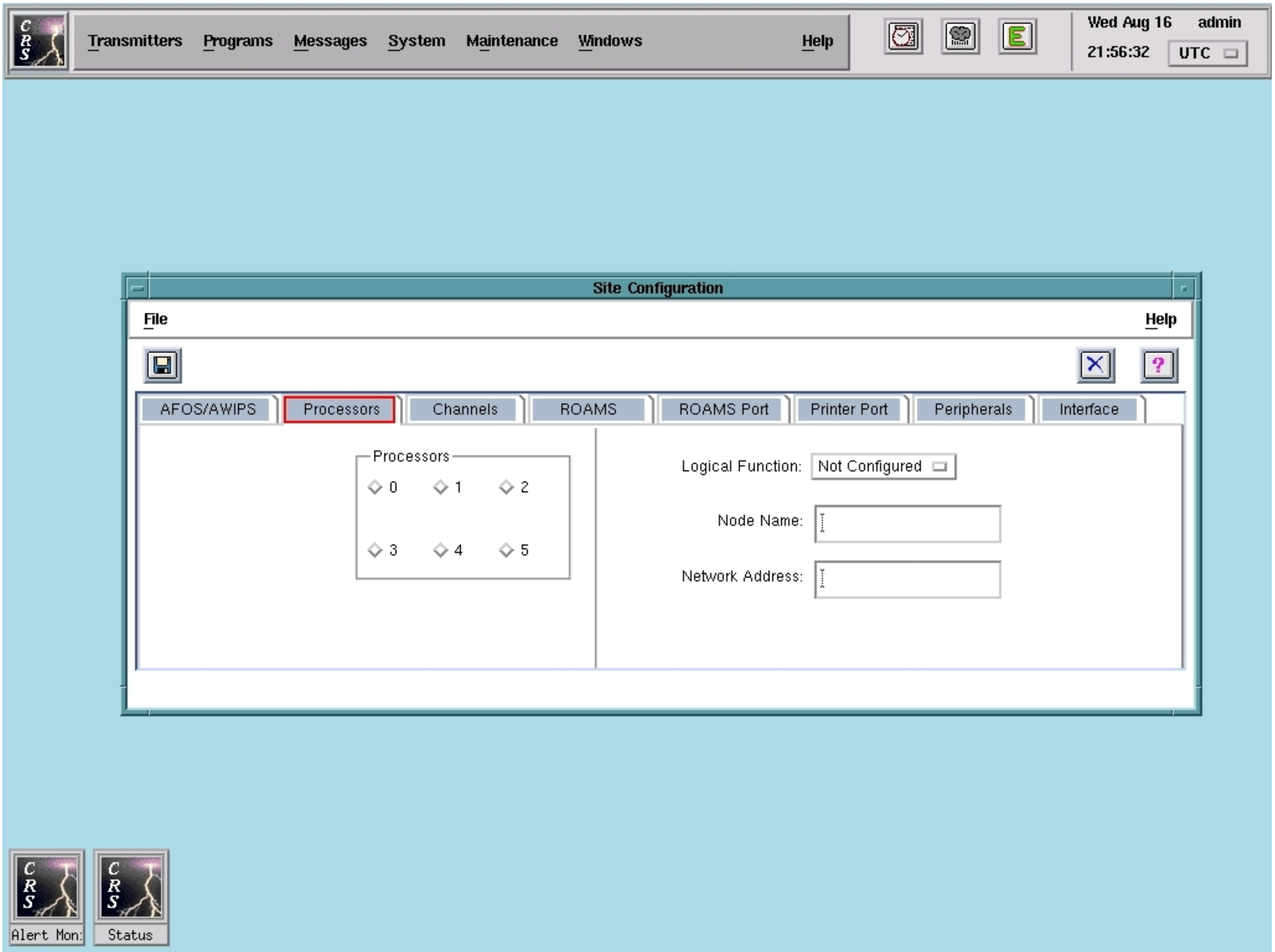
   - Node Name (i.e., OMP, 1FEP, 2FEP, etc.).

   - Network Address (i.e., network Ethernet address).

3. Exit the window or, if desired, configure other site parameters in accordance with the procedures described herein for those particular parameters.

---

[18] *As implied, processor parameters can be viewed but not edited via the* ***Site Configuration*** *window. Moreover, of the three parameters, only the Network Address can be changed and only by editing the* ***/etc/hosts*** *file. (Please* ***note*** *that if this file is changed, you must stop CRS, reboot the system, and then restart CRS in order to recognize the change.) The Logical Function is designated during CRS startup and is based on the physical configuration and not the ASCII configuration file.*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:56:32
UTC
Site Configuration
File
Help
AFOS/AWIPS
Processors
Channels
ROAMS
ROAMS Port
Printer Port
Peripherals
Interface
Processors
◇ 0
◇ 1
◇ 2
◇ 3
◇ 4
◇ 5
Node Name:
Network Address:
Alert Mon:
Status

Logical Function: Not Configured

Figure 117. Site Configuration Window *(Processors* Selected)

c. View/Configure Channel Parameters. To view/configure channel parameters, perform the following steps:

1. Click the *Channels* tab. The ***Site Configuration*** window will then be updated to reflect channel parameters (see Figure 118).

2. To view/configure parameters for a channel, click the radio button to the left of the desired channel number (i.e., 1 through 15). The following parameters will be updated to reflect any values previously specified for the selected channel:

   - Type (i.e., Not Configured, Transmitter, Playback 1, or Playback 2). To specify, click the option button to the right of the field and then select the desired type from the option list.

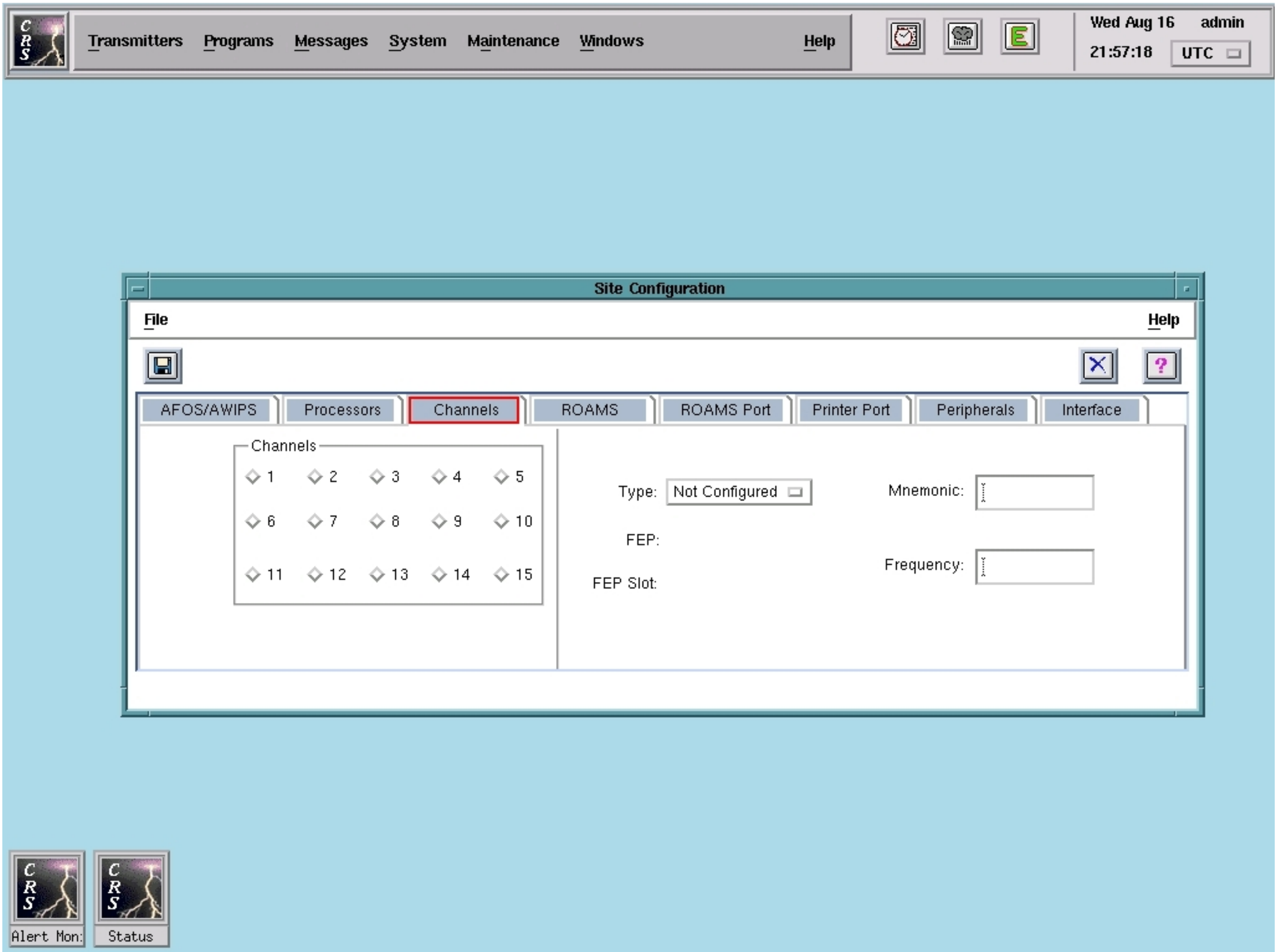
   - FEP (i.e., FEP 1, FEP 2, or FEP 3). This indicates the number of the FEP in which the selected channel is configured and is "display only".

   - FEP Slot (i.e., 1, 2, 3, 4, or 5). This indicates the slot number of the FEP (displayed in the FEP field) and is "display only".

   - Mnemonic (i.e., AAAAA through ZZZZZ in any combination). To specify, enter the desired value via the keyboard. This field will accept up to 5 ASCII characters.

   - Frequency (i.e., the frequency for the transmitter in MHZ). To specify, enter the desired value via the keyboard. This value is informational only and therefore does not affect the transmitter's frequency.

   Please **note** that your physical hardware configuration must match these settings; otherwise, your system will not operate as configured. Also **note** that if you change the channel type (in the Type field), you must stop and then restart CRS to effect the change.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:57:18
UTC
Site Configuration
File
Help
AFOS/AWIPS
Processors
Channels
ROAMS
ROAMS Port
Printer Port
Peripherals
Interface
Channels
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Alert Mon:
Status

Type: Not Configured

FEP:

FEP Slot:

Mnemonic:

Frequency:

Figure 118. Site Configuration Window (*Channels* Selected)

3. Click the APPLY hotkey (in the hotkey menu bar), i.e., if you have configured channel parameters. The parameters will subsequently be saved, and you will receive confirmation to this effect in the status display area.

4. If configuring parameters for more than one channel, repeat Steps 2 and 3 above for the other channel(s). Otherwise, exit the window or, if desired, configure other site parameters in accordance with the procedures described herein for those particular parameters.

d. View/Configure ROAMS Parameters. To view/configure ROAMS parameters, perform the following steps:

1. Click the *ROAMS* tab. The ***Site Configuration*** window will then be updated to reflect ROAMS-specific parameters (see Figure 119).

2. To view/configure parameters for a ROAMS transmitter, click the radio button to the left of the desired transmitter number (i.e., 1 through 13). The following parameters will be updated to reflect any values previously specified for the selected transmitter:

   - Phone Number. This is the phone number for the ROAMS Monitoring Unit (MU). To specify, enter the desired number (including the area code) via the keyboard.

   - Password. This is the password for the ROAMS MU. It is used by CRS to dial into the ROAMS MU. (Please **note** that this password must match the password used by the ROAMS MU to dial into CRS (see Machine Password field in Figure 34)). To specify, enter the password via the keyboard. This field will accept up to 6 ASCII characters.

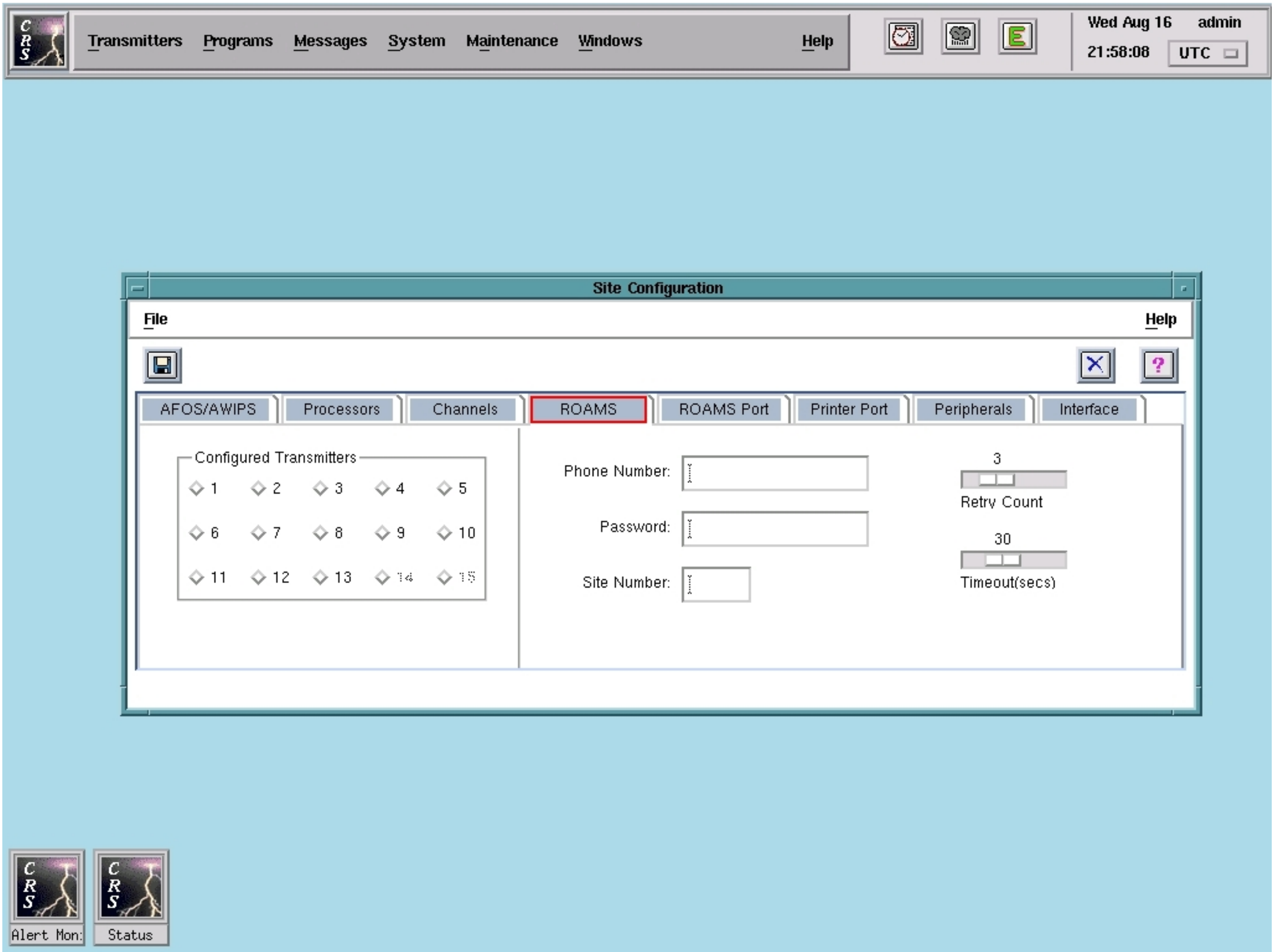
   - Site Number. This is the site number of the ROAMS MU. To specify, enter the desired number via the keyboard. This field will accept up to three ASCII digits.

   - Retry Count. This is the retry count for the ROAMS MU. To specify, select (via the slider control) the desired retry count number (i.e., 0 to 99).

   - Timeout (secs). This is the timeout for the ROAMS MU. To specify, select (via the slider control) the desired timeout value (i.e., 0 to 99 in seconds).

3. Click the APPLY hotkey (in the hotkey menu bar), i.e., if you have configured ROAMS parameters. The parameters will subsequently be saved, and you will receive confirmation to this effect in the status display area.

4. If configuring/modifying parameters for more than one transmitter, repeat Steps 2 and 3 above for the other transmitter(s). Otherwise, exit the window or, if desired, configure other site parameters in accordance with the procedures described herein for those particular parameters.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
21:58:08
UTC
Site Configuration
File
Help
AFOS/AWIPS
Processors
Channels
ROAMS
ROAMS Port
Printer Port
Peripherals
Interface
Configured Transmitters
◇ 1 ◇ 2 ◇ 3 ◇ 4 ◇ 5
◇ 6 ◇ 7 ◇ 8 ◇ 9 ◇ 10
◇ 11 ◇ 12 ◇ 13 ◇ 14 ◇ 15
Phone Number:
Password:
Site Number:
Alert Mon:
Status

Retry Count: 3

Timeout(secs): 30

Figure 119. Site Configuration Window (*ROAMS* Selected)

e. View/Configure ROAMS Port Parameters. To view/configure ROAMS port parameters, perform the following steps:

1. Click the *ROAMSPort* tab. The ***Site Configuration*** window will then be updated to reflect the following parameters (see Figure 120):

   - Baud Rate (i.e., 1200, 2400, 4800, 9600). To select, click the option button to the right of the field and then select the desired baud rate from the option list.

   - Parity (i.e., even, odd, none). To select, click the option button to the right of the field and then select the desired parity from the option list.

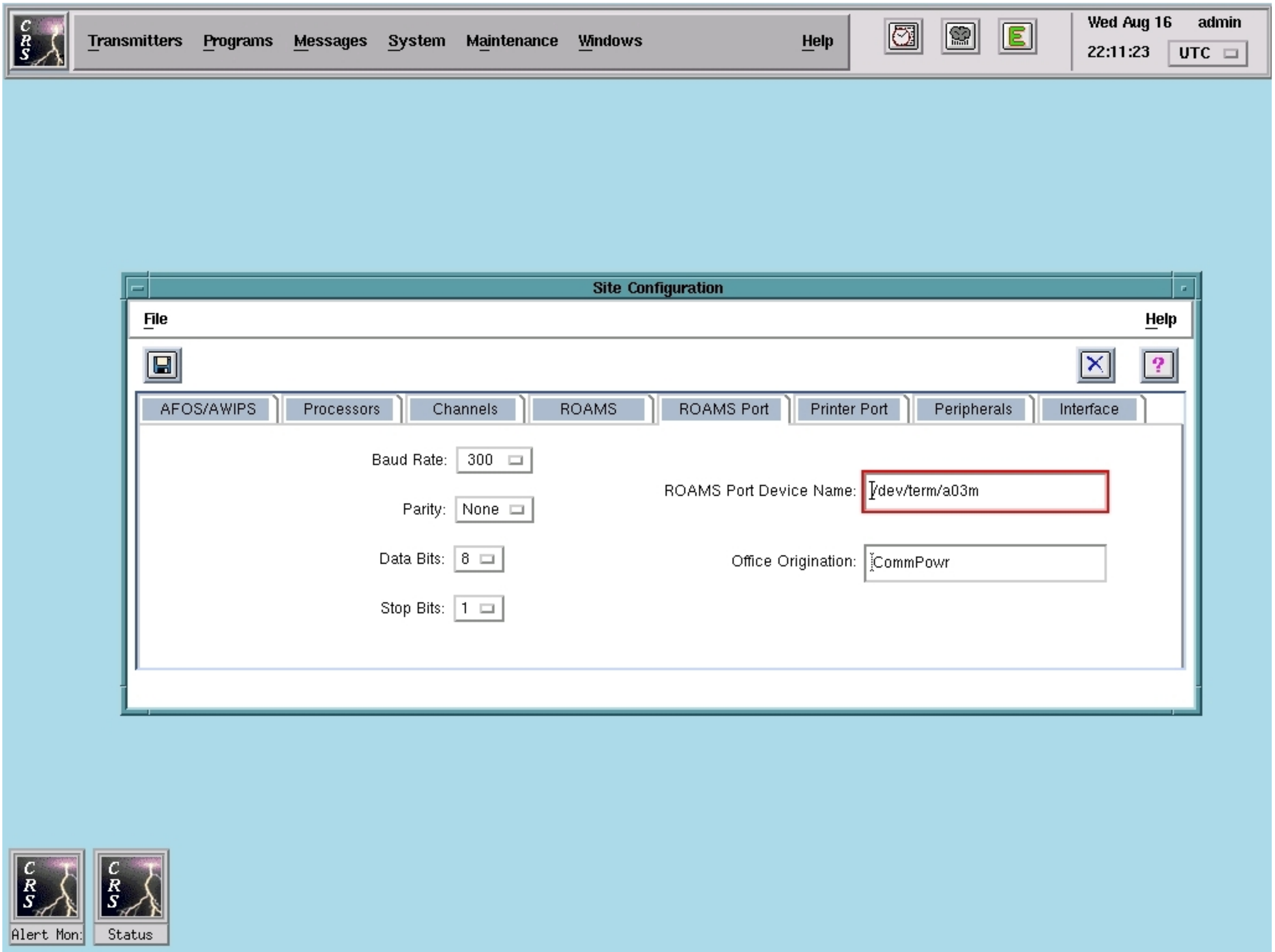
   - Data Bits (i.e., 7, 8). To select, click the option button to the right of the field and then select the desired data bit from the option list.

   - Stop Bits (i.e., 1, 2). To select, click the option button to the right of the field and then select the desired stop bit from the option list.

   - ROAMS Port Device Name. To specify, enter the port device name via the keyboard. This field will accept up to 16 ASCII characters.

   - Office Origination. This is the identification of the office originating the broadcast. To specify, enter the code via the keyboard. The field will accept up to 8 ASCII characters.

2. Click the APPLY hotkey (in the hotkey menu bar), i.e., if you have configured ROAMS port parameters. The parameters will subsequently be saved, and you will receive confirmation to this effect in the status display area. Then, exit the window or, if desired, configure other site parameters in accordance with the procedures described herein for those particular parameters.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
22:11:23
UTC
Site Configuration
File
Help
AFOS/AWIPS
Processors
Channels
ROAMS
ROAMS Port
Printer Port
Peripherals
Interface
Alert Mon:
Status

Baud Rate: 300

Parity: None

Data Bits: 8

Stop Bits: 1

ROAMS Port Device Name: /dev/term/a03m

Office Origination: CommPowr

Figure 120. Site Configuration Window (*ROAMS Port* Selected)

f. View/Configure Printer Port Parameters. To view/configure printer port parameters, perform the following steps:

1. Click the *Printer Port* tab. The ***Site Configuration*** window will then be updated to reflect the following parameters (see Figure 121):

   - Printer Device Name. To specify, enter the printer device name via the keyboard. This field will accept up to 16 ASCII characters.

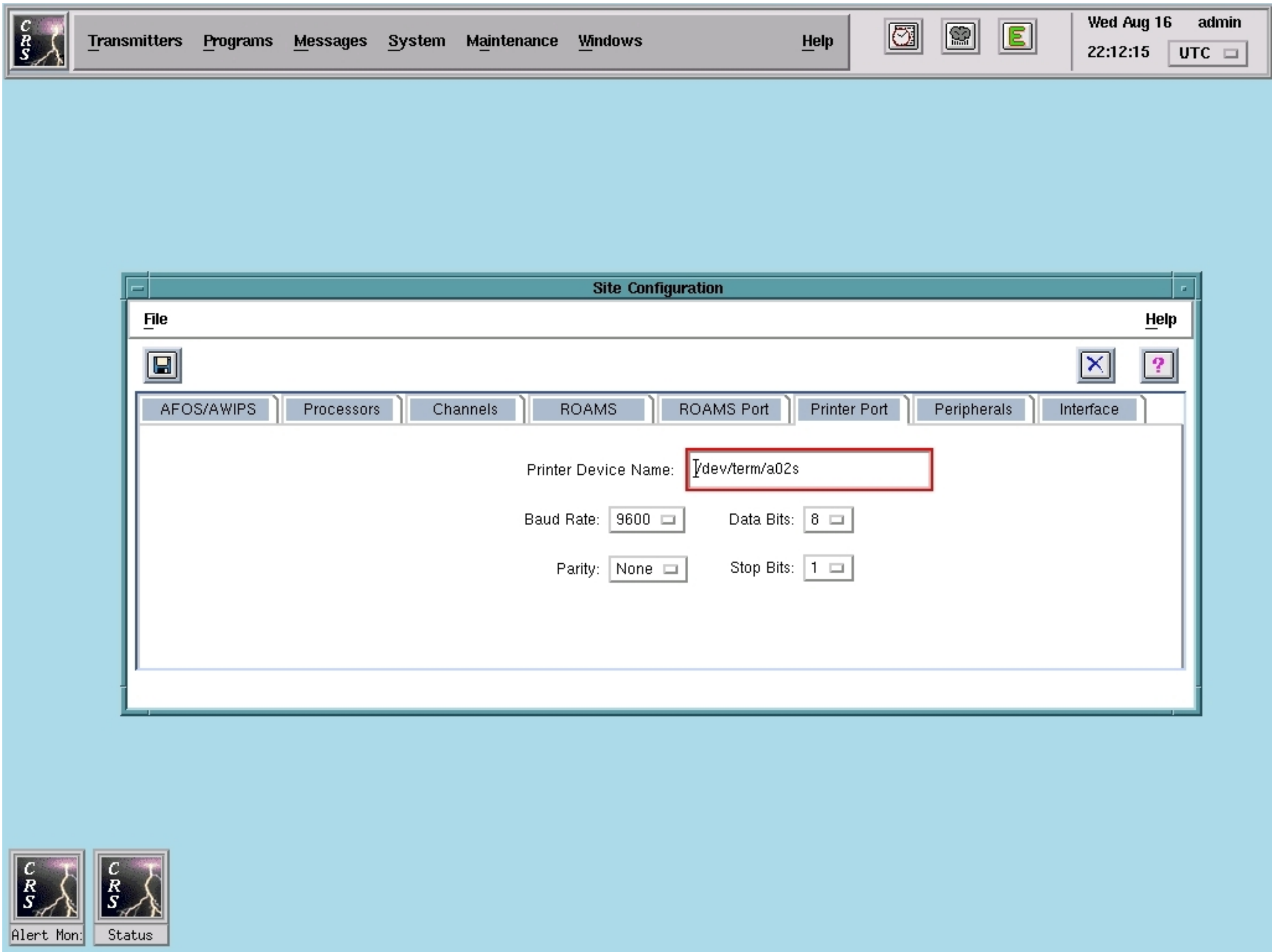
   - Baud Rate (i.e., 1200, 2400, 4800, 9600). To select, click the option button to the right of the field and then select the desired baud rate from the option list.

   - Parity (i.e., even, odd, none). To select, click the option button to the right of the field and then select the desired parity from the option list.

   - Data Bits (i.e., 7, 8). To select, click the option button to the right of the field and then select the desired data bit from the option list.

   - Stop Bits (i.e., 1, 2). To select, click the option button to the right of the field and then select the desired stop bit from the option list.

2. Click the APPLY hotkey (in the hotkey menu bar), i.e., if you have configured printer port parameters. The parameters will subsequently be saved, and you will receive confirmation to this effect in the status display area. Then, exit the window or, if desired, configure other site parameters in accordance with the procedures described herein for those particular parameters.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
22:12:15
UTC
Site Configuration
File
Help
AFOS/AWIPS
Processors
Channels
ROAMS
ROAMS Port
Printer Port
Peripherals
Interface
Alert Mon:
Status

Printer Device Name: /dev/term/a02s

Baud Rate: 9600
Data Bits: 8

Parity: None
Stop Bits: 1

Figure 121. Site Configuration Window (*Printer Port* Selected)

g. View/Configure Peripheral Parameters. To view/configure peripheral parameters, perform the following steps:

1. Click the *Peripherals* tab. The ***Site Configuration*** window will then be updated to reflect the following parameters (see Figure 122):

   - A/D Converter Channel. This is the channel on the board where the digitization of incoming voice takes place. This field is "display only".

   - A/D Converter Gain. This is the A/D converter gain and is "display only".

   - System Time Zone. This is the time zone for the CRS system. This field is "display only".

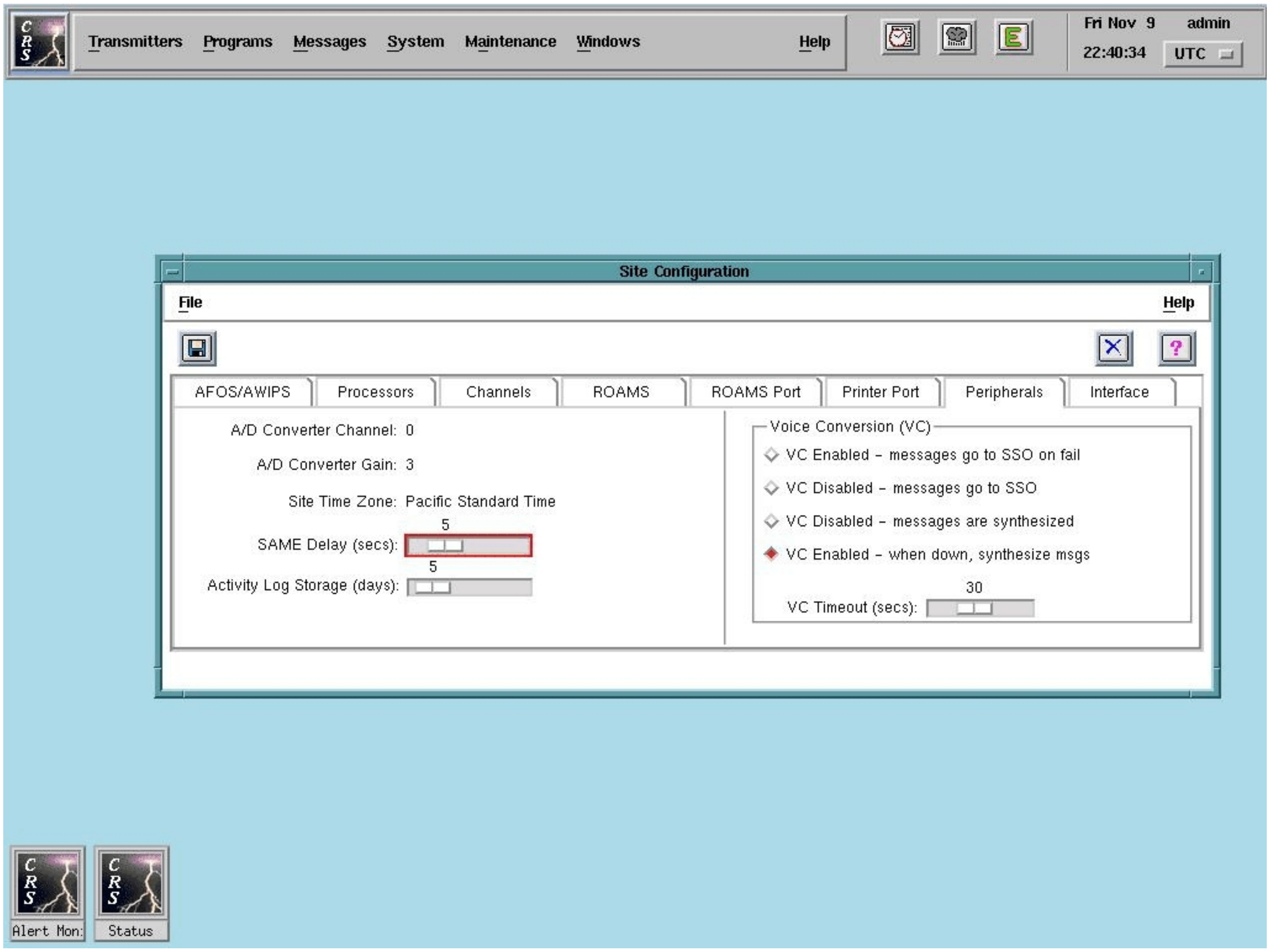
   - SAME Delay (secs). This is the delay in seconds before SAME tones are output from CRS. To specify, select (via the slider control) the desired delay (i.e., 0 to 59 seconds).

   - Activity Log Storage (days). This is the number of days that the error and transmit logs are maintained before they are purged. To specify, select (via the slider control) the desired number (i.e., 1 to 62 days).

   - Voice Conversion (VC). This is the VC mode of operation for CRS. There are four possible modes:

     - VC Enabled - messages go to SSO on fail: VC is enabled and AFOS/AWIPS messages are converted. If message conversion fails, messages are sent to SSO to alert you to them and to give you an opportunity to retry message conversion or to digitize or synthesize the messages.

     - VC Disabled - messages go to SSO: VC is disabled and AFOS/AWIPS messages designated for conversion are sent to SSO to alert you to them and to give you an opportunity to digitize or accept (or synthesize) the messages.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Nov 9
admin
22:40:34
UTC
Site Configuration
File
Help
AFOS/AWIPS
Processors
Channels
ROAMS
ROAMS Port
Printer Port
Peripherals
Interface
Alert Mon:
Status

A/D Converter Channel: 0

A/D Converter Gain: 3

Site Time Zone: Pacific Standard Time

SAME Delay (secs): 5

Activity Log Storage (days): 5

Voice Conversion (VC)

- ◇ VC Enabled – messages go to SSO on fail
- ◇ VC Disabled – messages go to SSO
- ◇ VC Disabled – messages are synthesized
- ◆ VC Enabled – when down, synthesize msgs

VC Timeout (secs): 30

Figure 122. Site Configuration Window (*Peripherals* Selected)

- VC Disabled - messages are synthesized: VC is disabled and AFOS/AWIPS messages designated for conversion are synthesized.

- VC Enabled - when down, synthesize messages: VC is enabled and AFOS/AWIPS messages are converted. If message conversion fails, messages are synthesized.

To specify, select the radio button to the left of the desired VC mode. Also select (via the associated slider) the desired timeout value (for VC) in the VC Timeout (secs) field. The CommPower-recommended value is 30 seconds.

2. Click the APPLY hotkey (in the hotkey menu bar), i.e., if you have configured peripheral parameters. The parameters will subsequently be saved, and you will receive confirmation to this effect in the status display area. Then, exit the window or, if desired, configure other site parameters in accordance with the procedures described herein for those particular parameters.

h. View/Configure Interface Parameters. To view/configure interface parameters, perform the following steps:

1. Click the *Interface* tab. The ***Site Configuration*** window will then be updated to reflect the following parameters (see Figure 123):

   - Default Master Playback Channel (i.e., PB1 or PB2). To select, click the option button to the right of the field and then select the desired default playback channel (for the "Master" MP) from the option list.

   - Default Shadow Playback Channel (i.e., PB1 or PB2). To select, click the option button to the right of the field and then select the desired default playback channel (for the "Shadow" MP) from the option list.

   - Default AWIPS Playback Channel (i.e., PB1 or PB2). To select, click the option button to the right of the field and then select the desired default playback channel (for AWIPS) from the option list.

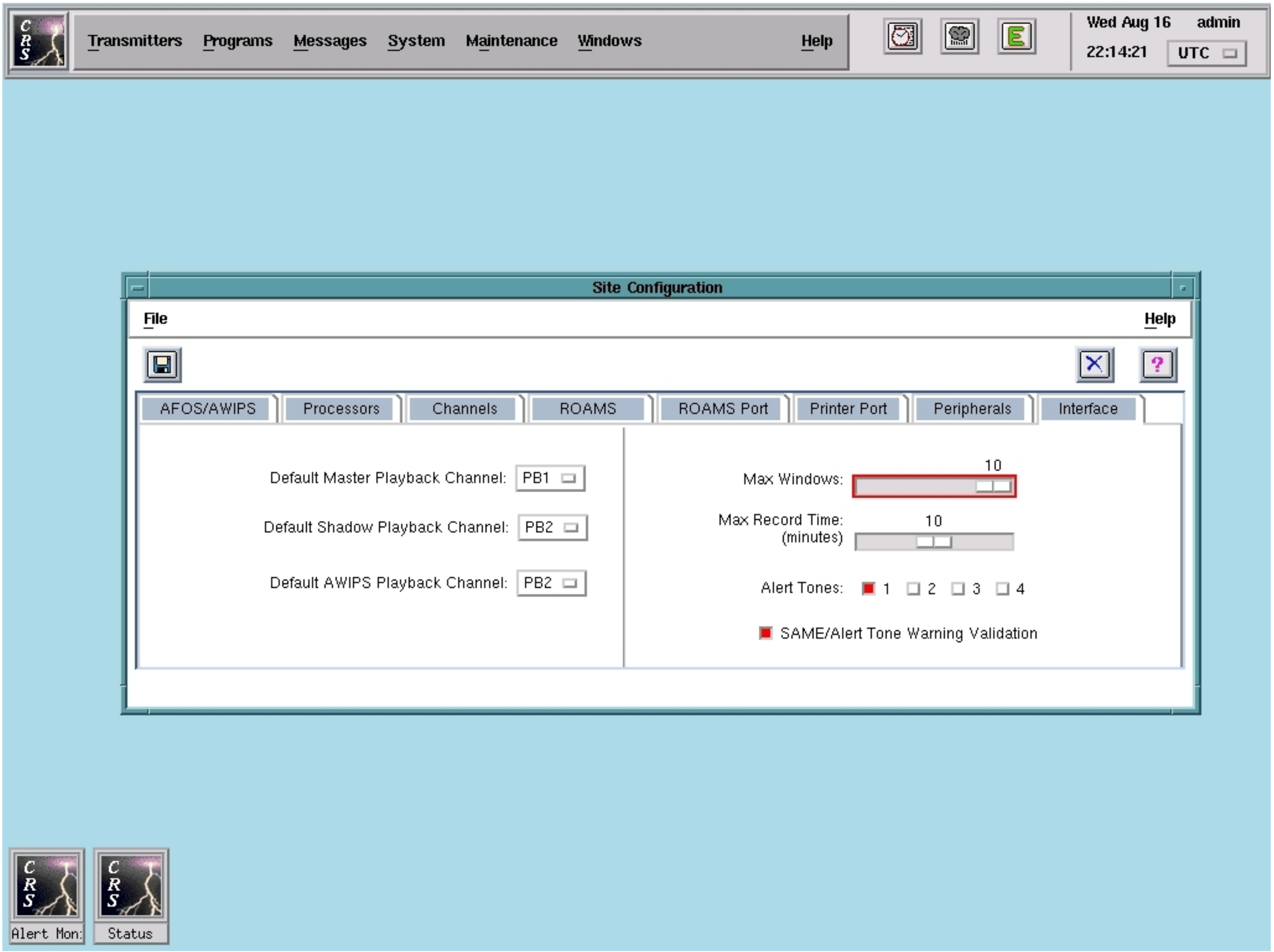
   - Max Windows (i.e., 3 to 10). To specify, select (via the slider control) the desired maximum number of windows (that can be open at any one time).

   - Max Record Time (i.e., 5 to 15 minutes). To specify, select (via the slider control) the desired maximum amount of recording time.

   - Alert Tones (i.e., 1 through 5). To specify, click the toggle button to the left of the desired alert tone(s).

   - SAME/Alert Tone Warning Validation. To specify click the toggle button to the left of the field. If selected, a warning will be displayed whenever you attempt to save a message (via the ***Weather Messages*** window) for which SAME and/or Alert tones have been selected.

2. Click the APPLY hotkey (in the hotkey menu bar), i.e., if you have configured interface parameters. The parameters will subsequently be saved, and you will receive confirmation to this effect in the status display area. Then, exit the window or, if desired, configure other site parameters in accordance with the procedures described herein for those particular parameters.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
22:14:21
UTC
Site Configuration
File
Help
AFOS/AWIPS
Processors
Channels
ROAMS
ROAMS Port
Printer Port
Peripherals
Interface
Alert Mon:
Status

Default Master Playback Channel: PB1

Default Shadow Playback Channel: PB2

Default AWIPS Playback Channel: PB2

Max Windows: 10

Max Record Time: (minutes) 10

Alert Tones: ☒ 1 ☐ 2 ☐ 3 ☐ 4

☒ SAME/Alert Tone Warning Validation

Figure 123. Site Configuration Window (*Interface* Selected)

3.6.2.5.9. Pronunciation Dictionaries

This submenu option allows you to create, edit, or compile a dictionary[19]. To perform the option, click the **Maintenance** menu and then select "Pronunciation Dictionaries". The ***Dictionary*** window will then be presented (see Figure 124). To continue, perform "a.", "b.", or "c." below depending on the desired operation.

a. Create Dictionary. If your intent is to create a dictionary, then perform the following steps:

1. Click the CREATE hotkey (in the hotkey menu bar).

2. Enter the desired dictionary name in the Dictionary field. This field will accept up to 20 ASCII characters.

3. Select the desired language (i.e., English or Spanish) by clicking the button in the Language field and selecting the language from the option list.

4. Click the SAVE hotkey (in the hotkey menu bar). The dictionary will subsequently be saved, and you will receive confirmation to this effect in the status display area.

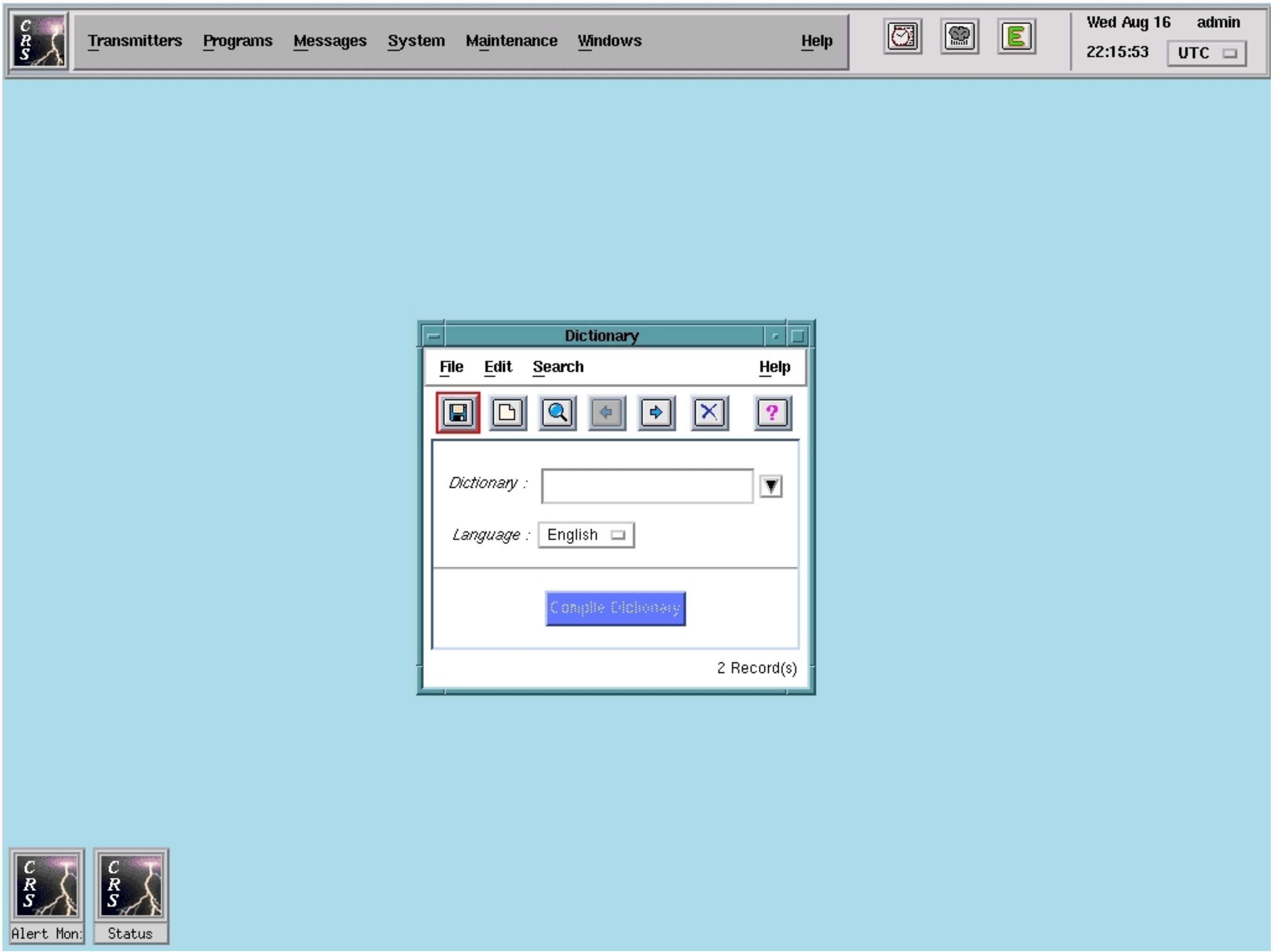
b. Edit Dictionary. If your intent is to edit a dictionary, then perform the following steps:

1. Click the list button to the right of the Dictionary field and select the desired dictionary from the pick-list by double-clicking it. The dictionary will be transferred to the Dictionary name field.

2. Edit the dictionary name as desired by performing Steps 2 through 4 described under "a." above, since the procedures for editing dictionaries are essentially the same as those for creating dictionaries.

---

[19] *When creating a dictionary, you are actually creating the name of the dictionary as well as a repository (by that name) for words created using the Word Pronunciation submenu option (see paragraph 3.6.2.5.10). When editing a dictionary, you are merely editing the name of the dictionary (or repository). When compiling a dictionary, you are creating the binary version of the selected dictionary which is then accessed and used by the DECTalk boards when synthesizing (or "creating") voice from text.*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
22:15:53
UTC
Dictionary
File
Edit
Search
Help
Dictionary :
Compile Dictionary
Alert Mon:
Status

Language : English

2 Record(s)

Figure 124. Dictionary Window

c. Compile Dictionary. If your intent is to compile a dictionary, then perform the following steps:

1. Click the list button to the right of the Dictionary field, select the desired dictionary from the pick-list, and then retrieve the record from the database by clicking the FIND hotkey (in the hotkey menu bar). Upon doing this, the *Compile Dictionary* button will become active (i.e., provided words have been created and saved to the selected dictionary (via the Word Pronunciation submenu option--see paragraph 3.6.2.5.10).

2. Click the *Compile Dictionary* button. The selected dictionary will subsequently be compiled (or recompiled if the dictionary has been previously compiled), and you will receive confirmation to this effect in the status display area.

3.6.2.5.10. Word Pronunciation

This submenu option allows you to create, view, or edit lists of words and their pronunciations. To perform the option, click the **Maintenance** menu and then select "Word Pronunciation". The ***Word Pronunciation*** window will then be presented (see Figure 125). To continue, perform "a." or "b." below depending on the desired operation.

a. Create Word. If your intent is to create a word, then perform the following steps:

1. Click the CREATE hotkey (in the hotkey menu bar).
2. Click the list button to the right of the Dictionary field and then select the desired dictionary from the pick-list.
3. Enter the new word in the Word field. This field will accept up to 20 ASCII characters.
4. Enter the phonetic or the phoneme spelling of the word in the Phonetic or Phoneme field.
5. Select the pronunciation method by clicking the radio button associated with the desired method.
6. Click the *Pronounce* button. CRS will then pronounce the new word.
7. Change the phonetic or phoneme spelling, if necessary, and click the *Pronounce* button again. Repeat this until you are satisfied with the system's pronunciation of the word and then go to Step 8. Otherwise, go directly to Step 8.
8. Click the SAVE hotkey (in the hotkey menu bar). The word will subsequently be saved to the specified dictionary, and you will receive confirmation to this effect in the status display area.
9. Compile the dictionary (with the new word) by clicking the *Compile* button and then clicking the *OK* button in response to the confirmation window. The selected dictionary will subsequently be recompiled, and you will receive confirmation to this effect in the status display area.

   Please **note** that should the compiler detect an error, this will be communicated to you via the ***Word Pronunciation - Compile*** window (see Figure 126). In the event this happens, review the error message, click

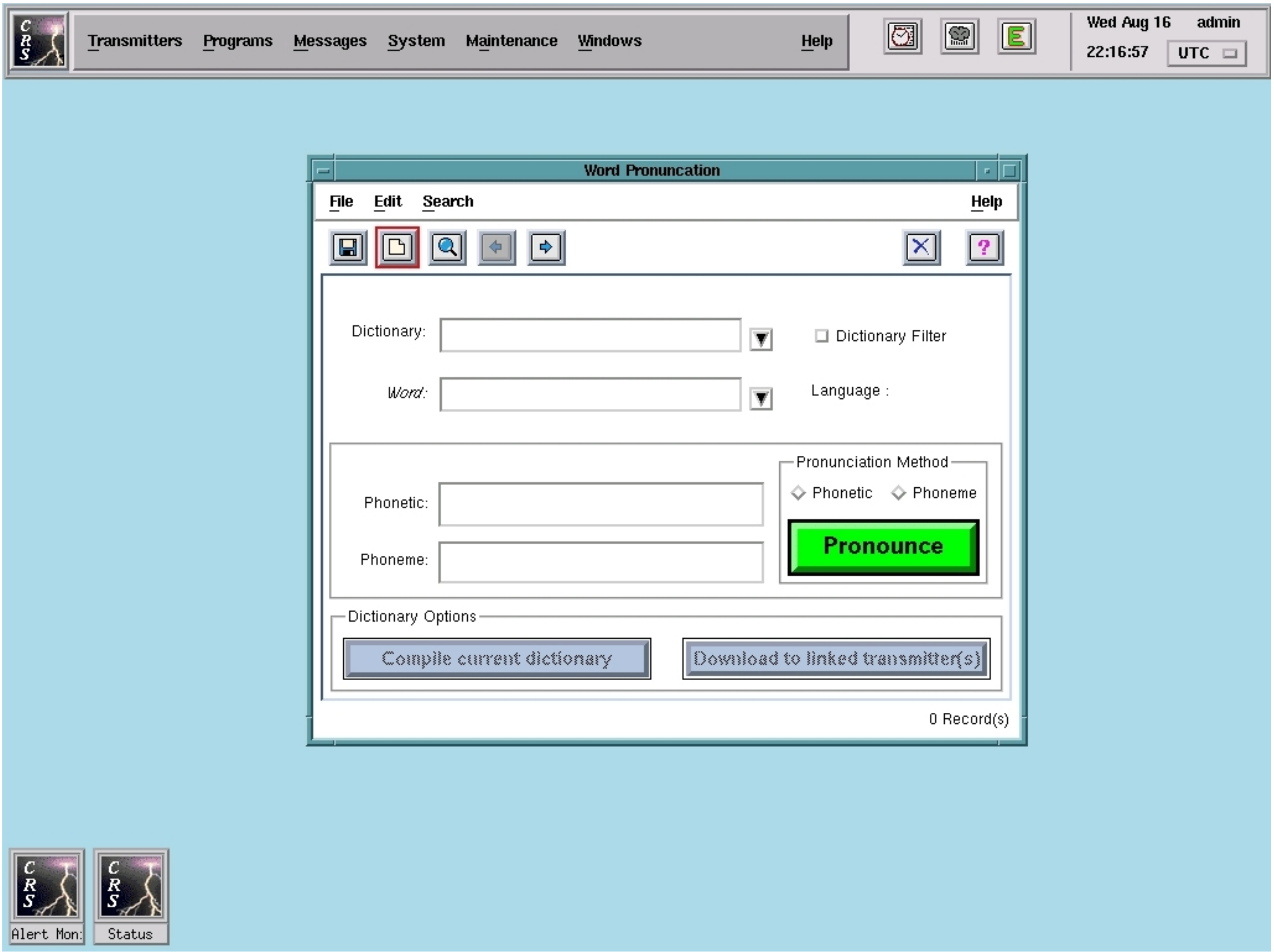
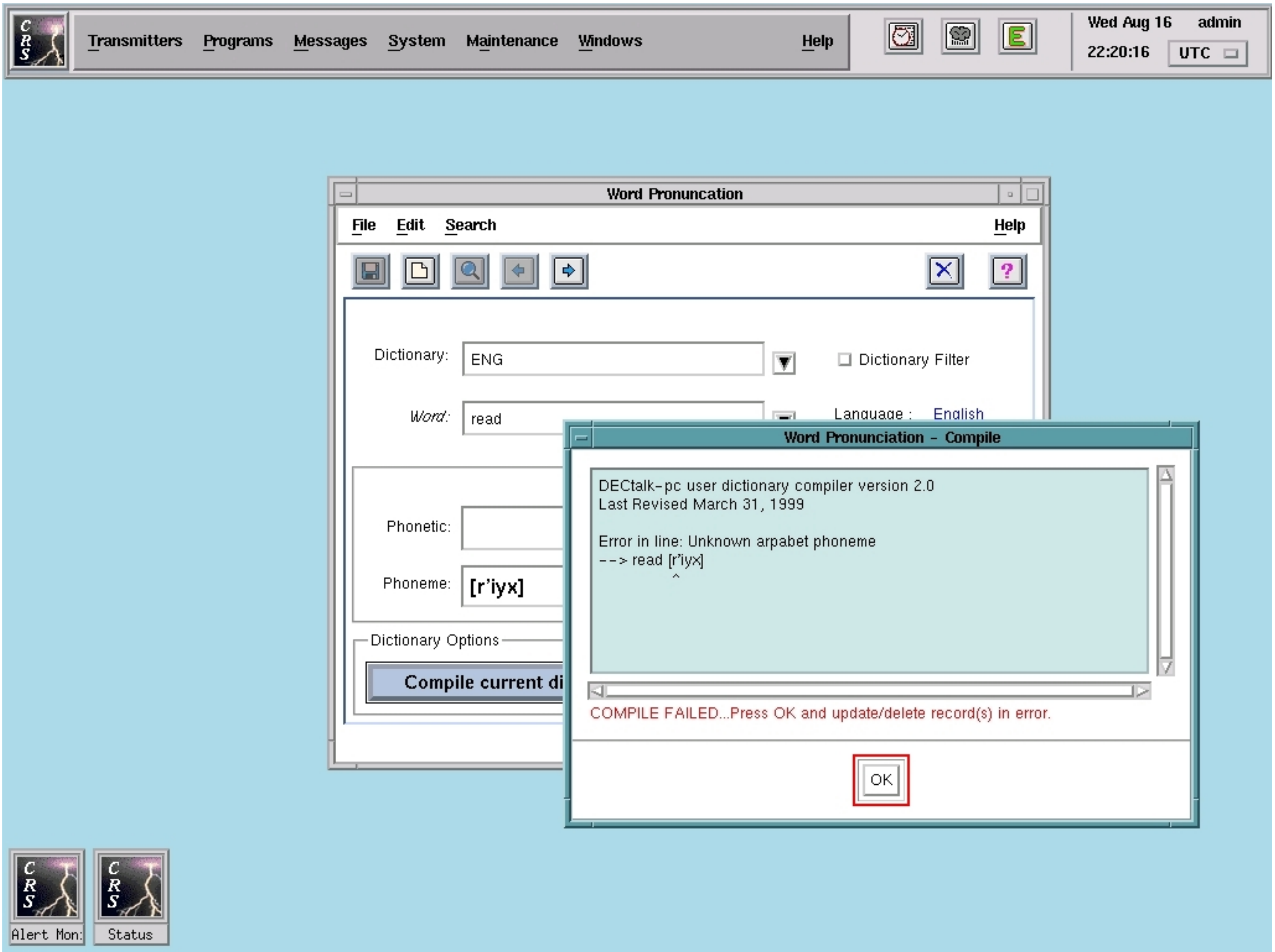

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
22:16:57
UTC
Word Pronuncation
File
Edit
Search
Help
Dictionary:
Dictionary Filter
Word:
Language :
Phonetic:
Phoneme:
Pronunciation Method
Phonetic
Phoneme
Pronounce
Dictionary Options
Compile current dictionary
Download to linked transmitter(s)
0 Record(s)
Alert Mon:
Status

Figure 125. Word Pronunciation Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
22:20:16
UTC
Word Pronuncation
File
Edit
Search
Help
Dictionary Filter
Language : English
Dictionary Options
Compile current di
Word Pronunciation - Compile
OK
Alert Mon:
Status

Dictionary: ENG

Word: read

Phonetic:

Phoneme: [r’iyx]

```
DECtalk-pc user dictionary compiler version 2.0
Last Revised March 31, 1999

Error in line: Unknown arpabet phoneme
--> read [r'iyx]
           ^
```

COMPILE FAILED...Press OK and update/delete record(s) in error.

Figure 126. Word Pronunciation - Compile Window

the *OK* button, execute the necessary corrective measures, repeat the appropriate steps above, and then go to Step 10. If you're uncertain as to how to fix the error, check with your system administrator.

10. Download the recompiled binary (or ".dtu") files to the corresponding transmitters (and/or playbacks) by performing the following substeps:

    - Click the *Download to Linked Transmitters* button. The ***Dictionary Download*** window will then be presented (see Figure 127). Select (via the mouse) the desired transmitters. The *Select All* and *Deselect All* buttons are provided to enable you to select all or deselect all transmitters, respectively.

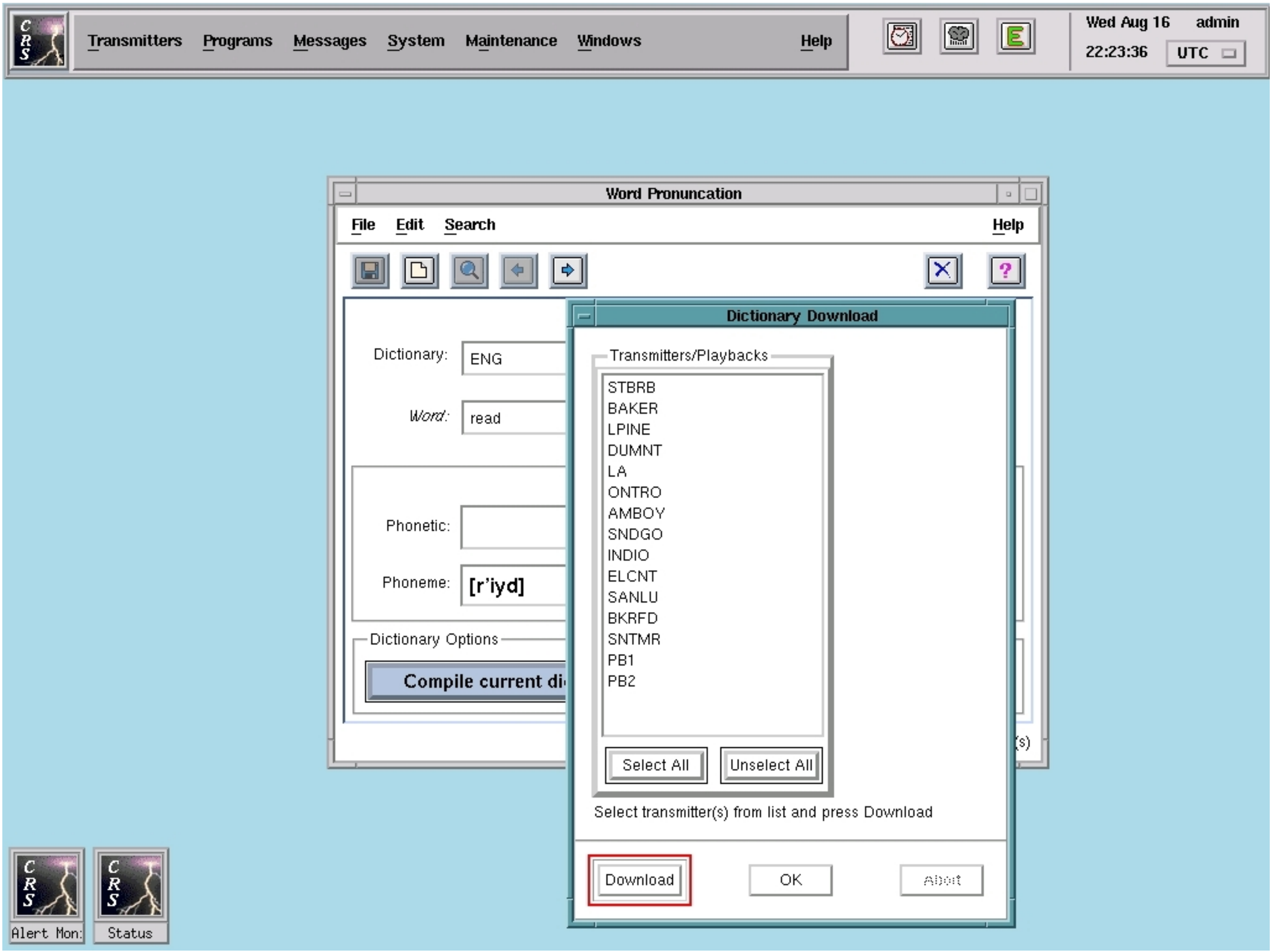
    - Click the *Download* button and then click the *OK* button in response to the confirmation window. The binary files will subsequently be downloaded to the FEP associated with the first of the selected transmitters, and you will receive confirmation to this effect in the status display area. After the files have been downloaded to the first transmitter, the transmitter name will appear to the right of the Transmitters/Playbacks subwindow along with a checkmark. CRS will repeat this process until the binary files have been successfully downloaded to each of the remaining transmitters previously selected (see Figure 128).

      If, for some reason, you decide to abort the download once underway, merely click the *Abort* button. A confirmation to this effect (specifically, "Downloading will be aborted for the next transmitter(s)...") will be displayed in the form of an ***Information*** window. To continue, click the *Close* button. The downloading will be aborted for the next transmitter, and both the ***Information*** and the ***Dictionary Download*** windows will be closed.

b. Edit Word. If your intent is to edit a word, then perform the following steps:

   1. Click the list button to the right of the Dictionary field and then select the desired dictionary from the pick-list.

   2. Click the list button to the right of the Word field and select the desired word from the pick-list by double-clicking it. The word will be transferred to the Word field.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
22:23:36
UTC
Word Pronuncation
File
Edit
Search
Help
Dictionary Options
Compile current di
Dictionary Download
Transmitters/Playbacks
Select All
Unselect All
Download
OK
Abort
Alert Mon:
Status

Dictionary: ENG

Word: read

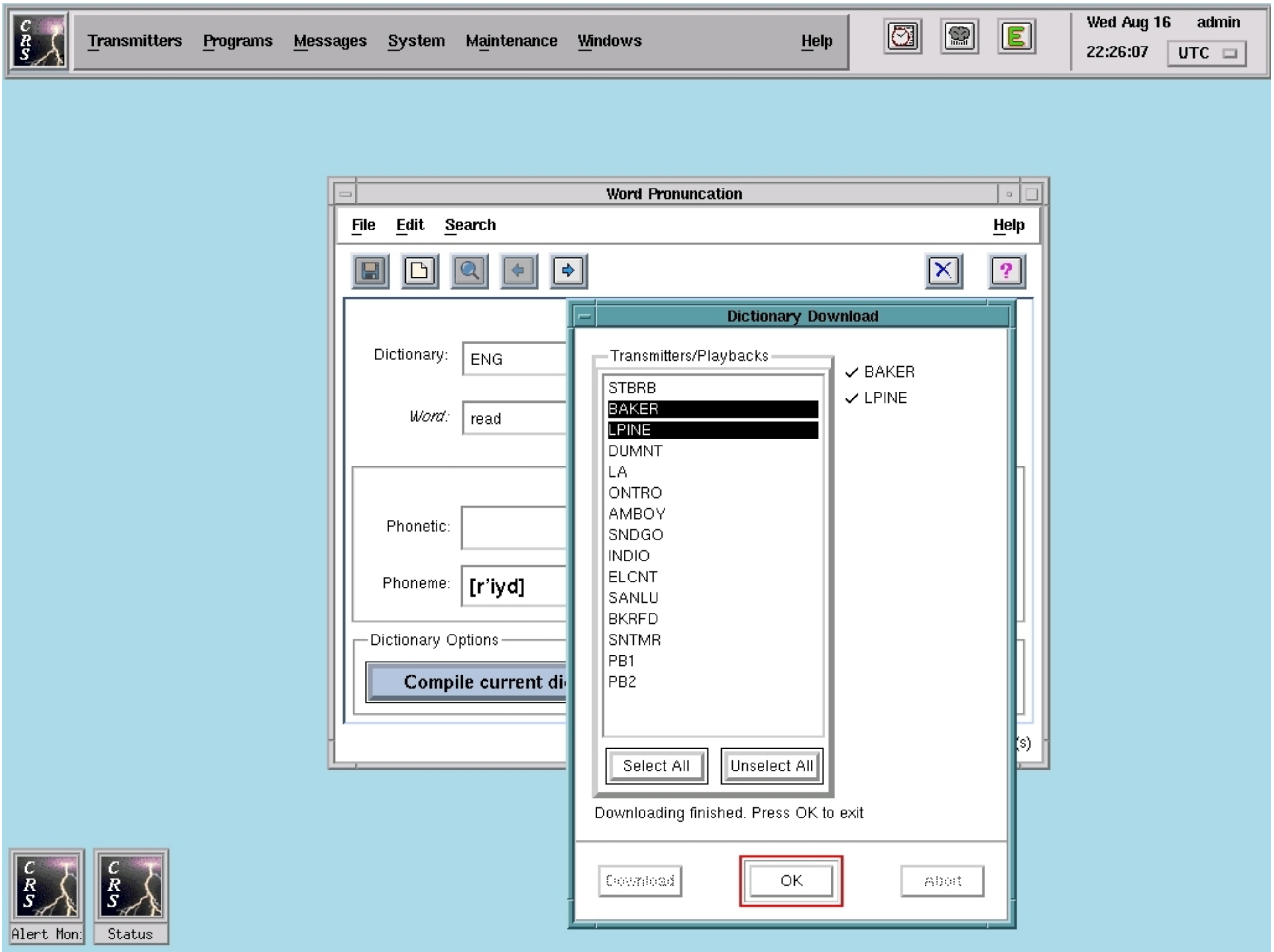
Phonetic:

Phoneme: [r'iyd]

STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2

Select transmitter(s) from list and press Download

Figure 127. Dictionary Download Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
22:26:07
UTC
Word Pronuncation
File
Edit
Search
Help
Dictionary:
ENG
Word:
read
Phonetic:
Phoneme:
[r'iyd]
Dictionary Options
Compile current di
Dictionary Download
Transmitters/Playbacks
STBRB
BAKER
LPINE
DUMNT
LA
ONTRO
AMBOY
SNDGO
INDIO
ELCNT
SANLU
BKRFD
SNTMR
PB1
PB2
✓ BAKER
✓ LPINE
Select All
Unselect All
Download
OK
Abort
Alert Mon:
Status

Downloading finished. Press OK to exit

Figure 128. Dictionary Download Window - Transmitters Successfully Downloaded

3. Change the phonetic or phoneme spelling of the word as desired by performing Steps 4 through 10 described under "a." above, since the procedures for editing word pronunciations are essentially the same as those for creating word pronunciations.

Please **note** that when creating or editing a word, you must command the system (via the *Pronounce* button) to pronounce the word at least one time or you will not be able to save the word. Also **note** that the Dictionary Filter field is provided to allow you to constrain (or "limit") the list of words displayed when clicking the Word list button to only those words contained in the specified dictionary. That is, if you were to specify or select a given dictionary, click the toggle associated with the Dictionary Filter, and then click the Word list button, the list of words presented would include only those words associated with that particular dictionary.

3.6.2.5.11. Error Message Format

This submenu option allows you to view or edit CRS error messages.[20] To perform the option, click the **Maintenance** menu and then select "Error Message Format". The ***Error Message Format*** window will then be presented (see Figure 129). To continue, perform the following steps:

a. Select (via the mouse) the desired error message using the scrollbars, as necessary, to locate the message. You can also use the *Find* button to search for a particular string contained in the message. To do this, merely type in the desired string, specify the desired search direction, select the toggle associated with the Case Sensitive field (i.e., if applicable), and click the *Find* button.

   Whether scrolling or using the *Find* button to locate the error message, once found the associated attribute fields will update to reflect those values assigned to the error message. These will include:

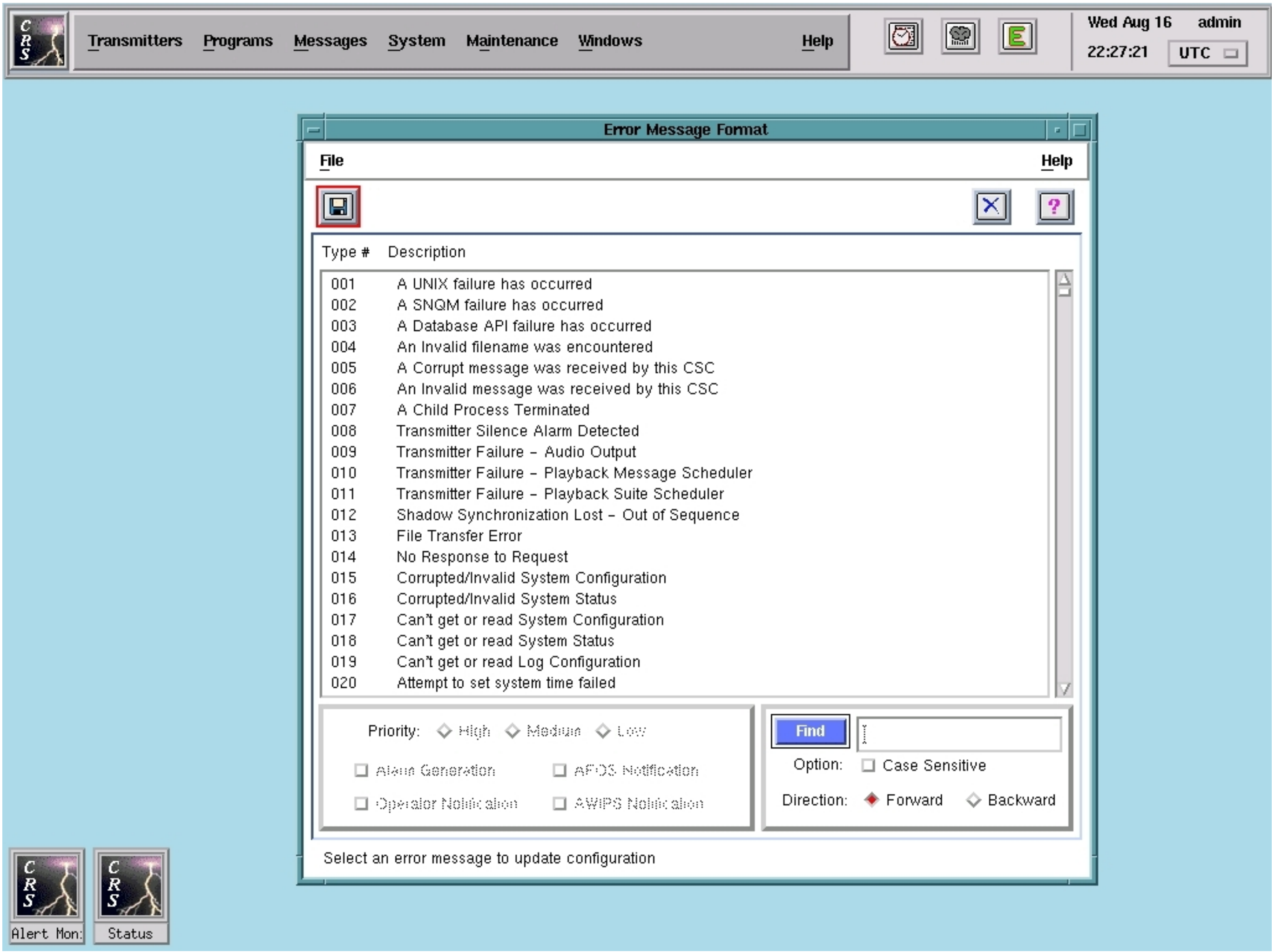
   1. Priority - indicates the priority for the selected error message type. Priority values determine the priority (or order in which) the messages are handled by CRS and include High, Medium, or Low, with High, obviously, being the highest priority. Hence, an error message with a High priority value will be immediately queued to the ***Alert Monitor*** window (see Figure 12), i.e., ahead of any other lower priority error messages, and will appear at the top of the error list and flash. Priority values can be changed by clicking the radio button associated with the desired value.

   2. Notification fields (i.e., Alarm Generation, AFOS Notification, AWIPS Notification, and Operator Notification) - indicate to whom the error message will be reported. To change these, click the toggle button(s) associated with the desired notification fields. Please **note** that the Alarm Generation field is "display only" and will automatically be selected for High priority messages and deselected for Medium and Low priority messages.

b. Click the APPLY hotkey (in the hotkey menu bar), if you've changed any of the fields associated with the error message. The changes will subsequently be saved, and you will receive confirmation to this effect in the status display area.

---

[20] *Site operators will be able to display but not edit error messages. Only the CRS system administrator will be able to edit error messages. If necessary, refer to Appendix IV for CRS menu-by-menu access privileges.*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Wed Aug 16
admin
22:27:21
UTC
Error Message Format
File
Help
Find
Alert Mon:
Status

Type #	Description
001	A UNIX failure has occurred
002	A SNQM failure has occurred
003	A Database API failure has occurred
004	An Invalid filename was encountered
005	A Corrupt message was received by this CSC
006	An Invalid message was received by this CSC
007	A Child Process Terminated
008	Transmitter Silence Alarm Detected
009	Transmitter Failure – Audio Output
010	Transmitter Failure – Playback Message Scheduler
011	Transmitter Failure – Playback Suite Scheduler
012	Shadow Synchronization Lost – Out of Sequence
013	File Transfer Error
014	No Response to Request
015	Corrupted/Invalid System Configuration
016	Corrupted/Invalid System Status
017	Can’t get or read System Configuration
018	Can’t get or read System Status
019	Can’t get or read Log Configuration
020	Attempt to set system time failed

Priority: ◇ High ◇ Medium ◇ Low

☐ Alarm Generation ☐ AFOS Notification

☐ Operator Notification ☐ AWIPS Notification

Option: ☐ Case Sensitive

Direction: ◆ Forward ◇ Backward

Select an error message to update configuration

Figure 129. Error Message Format Window

3.6.2.5.12. Database Backup/Restore

This submenu option allows you to back up or restore data files, message components, dictionary files, and system configuration data to or from the hard disk.[21] It aslo enables the user to backup or restore dictionary files only to or from a diskette. To perform the option, click the **Maintenance** menu and then select "Database Backup/Restore". The ***Database Backup/Restore*** window will then be presented (see Figure 130). To continue, perform "a.", "b.", "c." or "d." below depending on the desired operation. Please **note** that backup/restore operations must be performed from the "Master" processor. Also **note** that you must stop CRS before beginning restore operations (if necessary, see paragraph 3.6.2.4.5).

a. Back up to Disk. If your intent is to back up to the hard disk, then perform the following steps:

   1. Specify the desired backup name in the Directory Name field. This name will be appended to **/crs/data/DB_BKUP** as noted in the ***Database Backup/Restore*** window.

   2. Click the toggle button to the right of the menu and select ***Database Backup/Restore***.

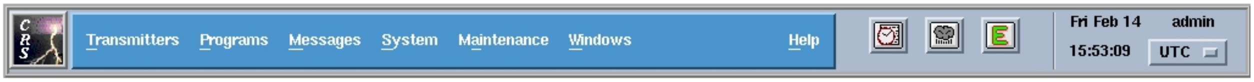
   3. Click the option button to the left of the menu and select ***Backup To Disk***.

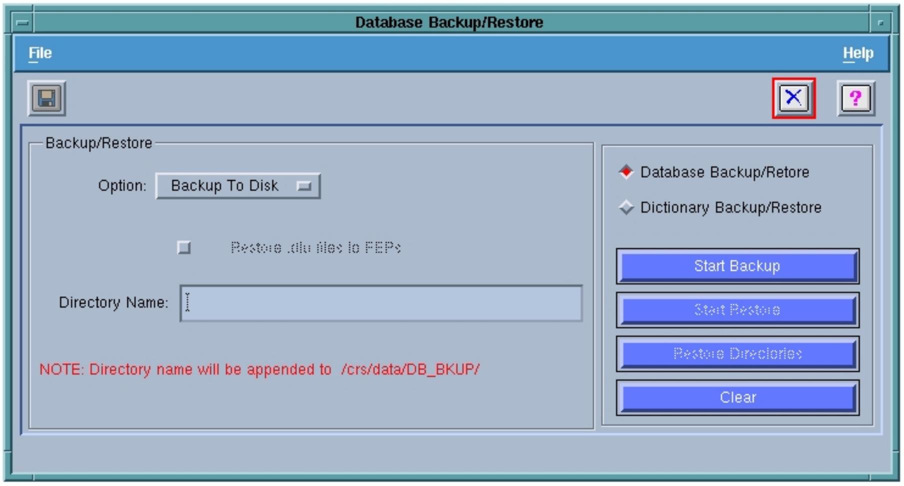
   4. Click the *Start Backup* button and then click *OK* in response to the confirmation (or Warning) window. The backup operation will begin, and the ***db_bkup*** window will be presented (see Figure 131) to confirm the backup startup and to allow you to monitor the operation.

   5. When backup is complete, press return in response to the prompt and the ***db_bkup*** window will be closed.

---

[21] *This submenu option is available to the CRS system administrator only. If necessary, refer to Appendix VI for CRS menu-by-menu access privileges.*


CRS
Transmitters
Programs
Messages
System
Maintenance
Windows
Help
E
Fri Feb 14
admin
15:53:09
UTC


Database Backup/Restore
File
Help
Backup/Restore
Start Backup
Start Restore
Restore Directories
Clear

Option: Backup To Disk

☐ Restore .dlu files to FEPs

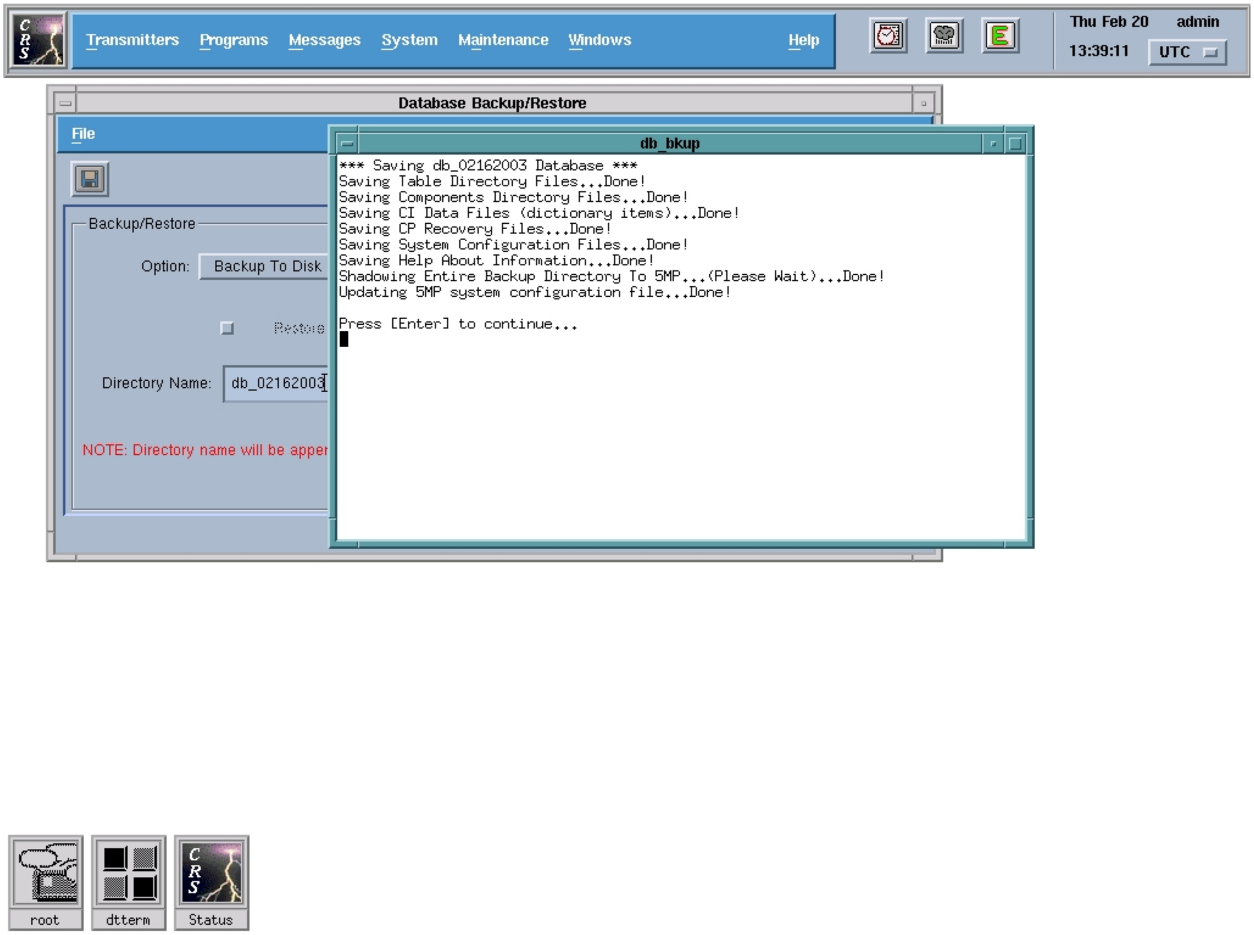
Directory Name:

NOTE: Directory name will be appended to /crs/data/DB_BKUP/

● Database Backup/Retore

○ Dictionary Backup/Restore

Figure 130. Database Backup/Restore Window



Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Feb 20
admin
13:39:11
UTC
Database Backup/Restore
File
Backup/Restore
Restore
db_bkup
root
dtterm
Status

Option: Backup To Disk

Directory Name: db_02162003

NOTE: Directory name will be apper

```
*** Saving db_02162003 Database ***
Saving Table Directory Files...Done!
Saving Components Directory Files...Done!
Saving CI Data Files (dictionary items)...Done!
Saving CP Recovery Files...Done!
Saving System Configuration Files...Done!
Saving Help About Information...Done!
Shadowing Entire Backup Directory To 5MP...(Please Wait)...Done!
Updating 5MP system configuration file...Done!

Press [Enter] to continue...
```

Figure 131. Db_backup Window

b. Restore from Disk. If your intent is to restore from hard disk, then perform the following steps:

1. Click the option button to the right of the menu and select ***Restore From Disk***. By default, "Restore .dtu files to FEPs" will be selected. This means that the binary dictionary files once restored from disk will be copied or (downloaded) to the FEPs. If, for some reason, you don't want this to happen during the restore operation, then deselect the toggle field.

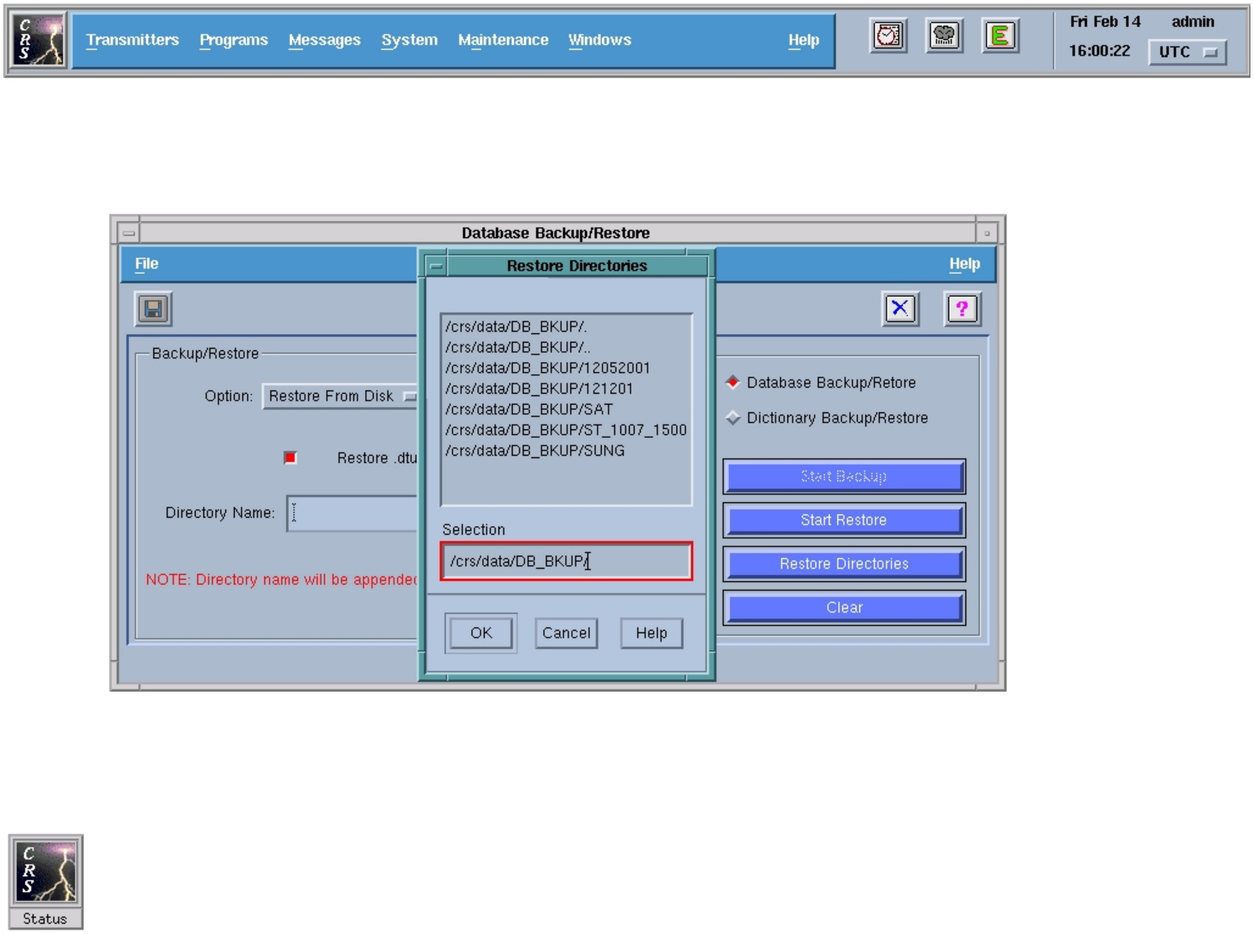
2. Click the toggle button to the right of the menu and select ***Database Backup/Restore***.

3. Click the *Restore Directories* button. The ***Restore Directories*** window will then be presented (see Figure 132).

4. Select the desired backup by highlighting it in the ***Restore Directories*** window and then clicking the *OK* button. The selected backup will then be copied to the Directory Name field (in the ***Database Backup/Restore*** window).

5. Click the *Start Restore* button and then click *OK* in response to the confirmation (or Warning) window. The restore operation will begin, and the ***db_bkup*** window will be presented to confirm the restore startup and to allow you to monitor the operation.

6. When restore is complete, press return in response to the prompt and the ***db_bkup*** window will be closed.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
admin
16:00:22
UTC
Database Backup/Restore
File
Help
Restore Directories
Backup/Restore
Restore .dtu
Database Backup/Retore
Dictionary Backup/Restore
Start Backup
Start Restore
Restore Directories
Clear
OK
Cancel
Help
Status

Option: Restore From Disk

Directory Name:

NOTE: Directory name will be appendec

/crs/data/DB_BKUP/.
/crs/data/DB_BKUP/..
/crs/data/DB_BKUP/12052001
/crs/data/DB_BKUP/121201
/crs/data/DB_BKUP/SAT
/crs/data/DB_BKUP/ST_1007_1500
/crs/data/DB_BKUP/SUNG

Selection: /crs/data/DB_BKUP/

Figure 132. Restore Dictionaries Window

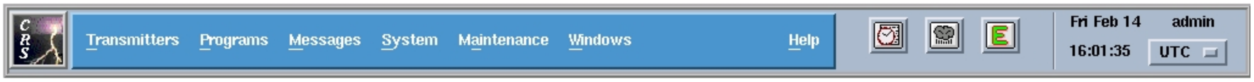
Dictionary Backup/Restore

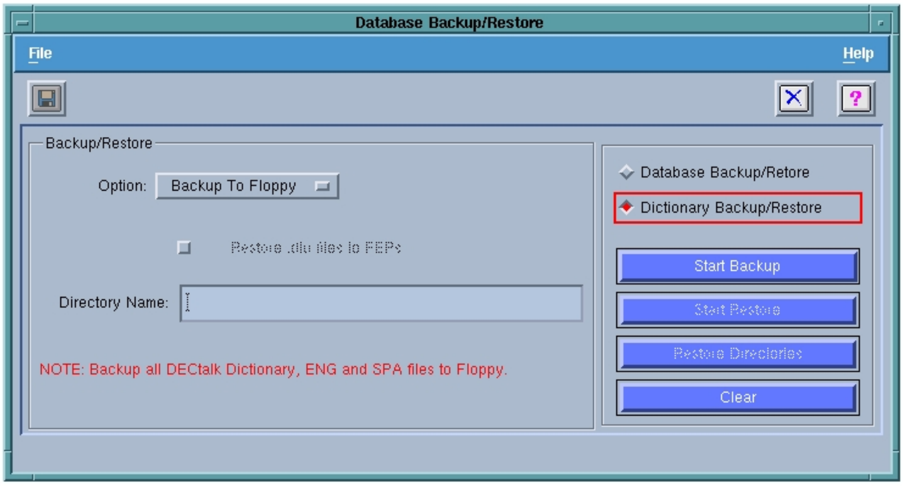
c. Back up dictionary files only to Floppy: If you intend to backup to the floppy, then perform the followings steps:

1. Insert a pre-format 1.44MB diskette into floppy drive.
2. Click the toggle button to the right of the menu and select ***Dictionary Backup/Restore*** (see Figure 133).
3. Click the option button to the left of the menu and select ***Backup To Floppy***
4. Click the *Start Backup* button and then click ***OK*** in response to the confirmation (or Warning) window. The backup operation will begin, and the dc_bkup window will be presented to confirm the backup startup and to allow you to monitor the operation.
5. When backup is complete, press return in response to the prompt and the dc_bkup window will be closed.

d. Restore dictionary files only from Floppy: If you intend to restore from the floppy, then perform the following steps:

1. Insert the 1.44MB backup diskette into floppy drive.
2. Click the toggle button to the right of the menu to select ***Dictionary Backup/Restore*** (see Figure 135).
3. Click the option button to the left of the menu and select ***Restore From Floppy***.
4. Click the *Start Restore* button and then click ***OK*** in response to the confirmation (or Warning) window. The backup operation will begin, and the dc_bkup window will be presented to confirm the backup startup and to allow you to monitor the operation.
5. When backup is complete, press return in response to the prompt and the dc_bkup window will be closed.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
admin
16:01:35
UTC


Database Backup/Restore
File
Help
Backup/Restore
Start Backup
Start Restore
Restore Directories
Clear

Option: Backup To Floppy

☐ Restore .dic files to FEPs

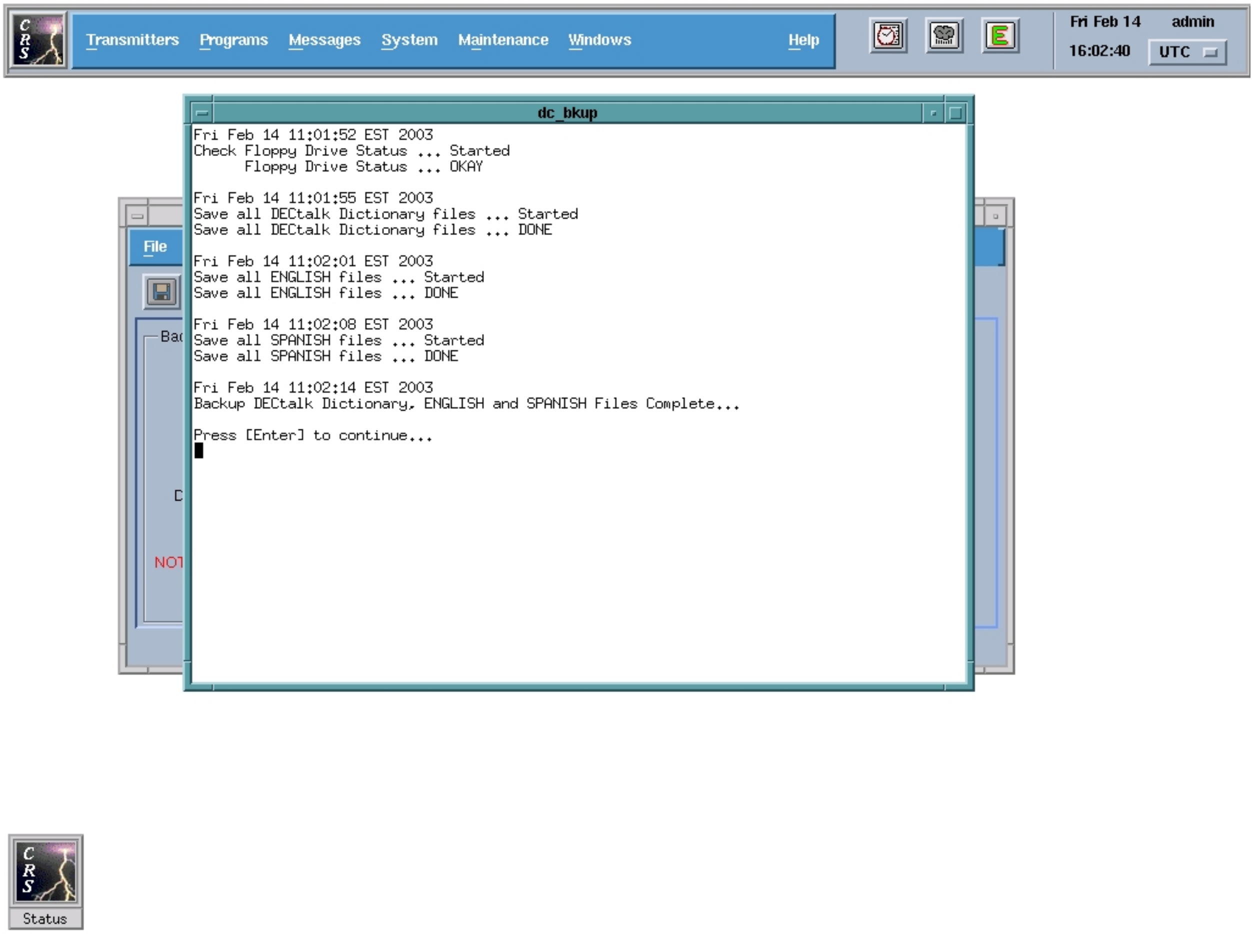
Directory Name:

NOTE: Backup all DECtalk Dictionary, ENG and SPA files to Floppy.

○ Database Backup/Retore

● Dictionary Backup/Restore

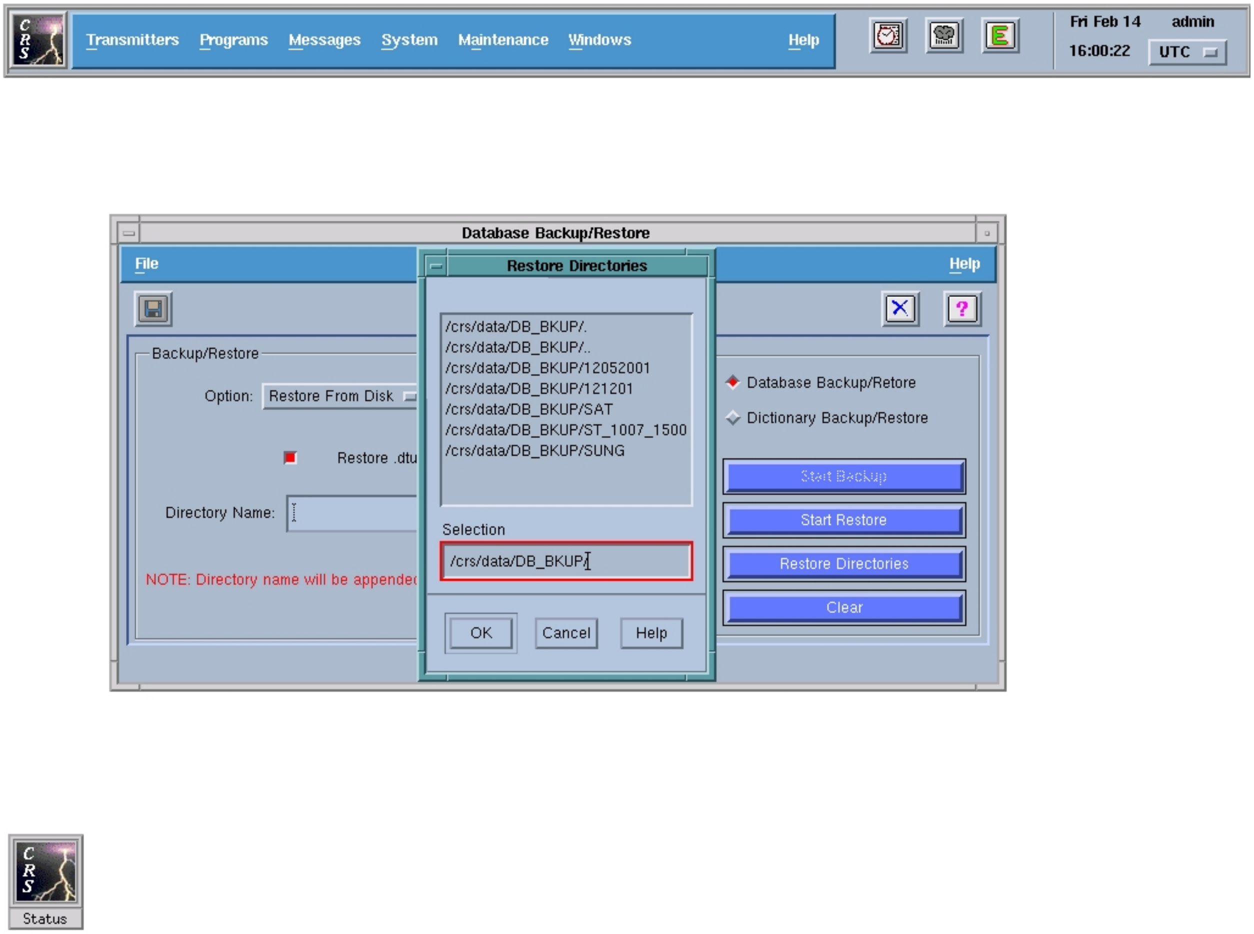
Figure 133. Dictionary Backup Window



Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
admin
16:02:40
UTC
dc_bkup
File
Status

```
Fri Feb 14 11:01:52 EST 2003
Check Floppy Drive Status ... Started
      Floppy Drive Status ... OKAY

Fri Feb 14 11:01:55 EST 2003
Save all DECtalk Dictionary files ... Started
Save all DECtalk Dictionary files ... DONE

Fri Feb 14 11:02:01 EST 2003
Save all ENGLISH files ... Started
Save all ENGLISH files ... DONE

Fri Feb 14 11:02:08 EST 2003
Save all SPANISH files ... Started
Save all SPANISH files ... DONE

Fri Feb 14 11:02:14 EST 2003
Backup DECtalk Dictionary, ENGLISH and SPANISH Files Complete...

Press [Enter] to continue...
```

Figure 134. Dictionary Backup Xterm Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
admin
16:00:22
UTC
Database Backup/Restore
File
Help
Restore Directories
Backup/Restore
Start Backup
Start Restore
Restore Directories
Clear
OK
Cancel
Help
Status

Option: Restore From Disk

☒ Restore .dtu

Directory Name:

NOTE: Directory name will be appended

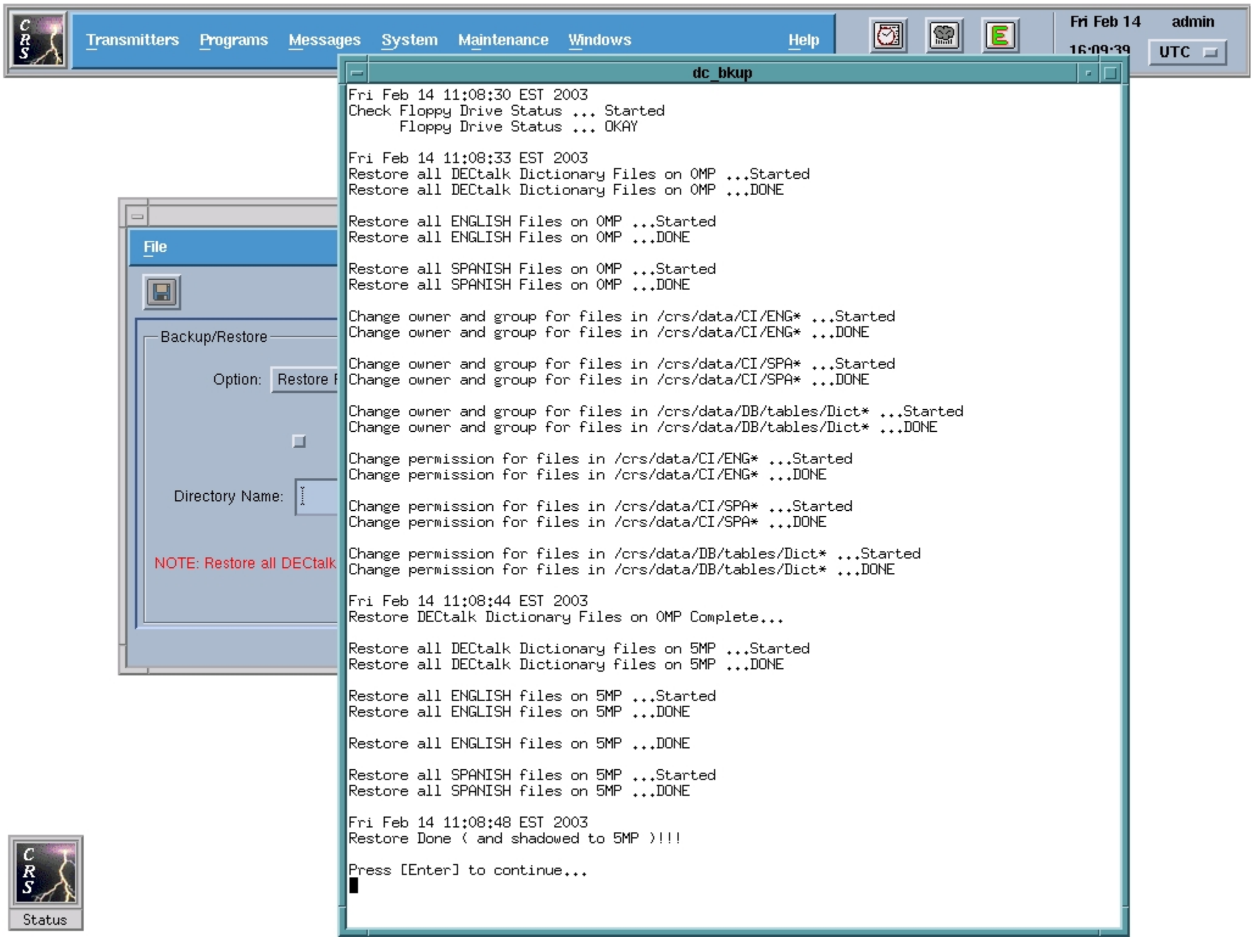
● Database Backup/Retore

○ Dictionary Backup/Restore

/crs/data/DB_BKUP/.
/crs/data/DB_BKUP/..
/crs/data/DB_BKUP/12052001
/crs/data/DB_BKUP/121201
/crs/data/DB_BKUP/SAT
/crs/data/DB_BKUP/ST_1007_1500
/crs/data/DB_BKUP/SUNG

Selection: /crs/data/DB_BKUP/

Figure 135. Dictionary Restore Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
16:09:39
admin
UTC
dc_bkup
File
Backup/Restore
Option:
Restore f
Directory Name:
NOTE: Restore all DECtalk
Status

```
Fri Feb 14 11:08:30 EST 2003
Check Floppy Drive Status ... Started
      Floppy Drive Status ... OKAY

Fri Feb 14 11:08:33 EST 2003
Restore all DECtalk Dictionary Files on 0MP ...Started
Restore all DECtalk Dictionary Files on 0MP ...DONE

Restore all ENGLISH Files on 0MP ...Started
Restore all ENGLISH Files on 0MP ...DONE

Restore all SPANISH Files on 0MP ...Started
Restore all SPANISH Files on 0MP ...DONE

Change owner and group for files in /crs/data/CI/ENG* ...Started
Change owner and group for files in /crs/data/CI/ENG* ...DONE

Change owner and group for files in /crs/data/CI/SPA* ...Started
Change owner and group for files in /crs/data/CI/SPA* ...DONE

Change owner and group for files in /crs/data/DB/tables/Dict* ...Started
Change owner and group for files in /crs/data/DB/tables/Dict* ...DONE

Change permission for files in /crs/data/CI/ENG* ...Started
Change permission for files in /crs/data/CI/ENG* ...DONE

Change permission for files in /crs/data/CI/SPA* ...Started
Change permission for files in /crs/data/CI/SPA* ...DONE

Change permission for files in /crs/data/DB/tables/Dict* ...Started
Change permission for files in /crs/data/DB/tables/Dict* ...DONE

Fri Feb 14 11:08:44 EST 2003
Restore DECtalk Dictionary Files on 0MP Complete...

Restore all DECtalk Dictionary files on 5MP ...Started
Restore all DECtalk Dictionary files on 5MP ...DONE

Restore all ENGLISH files on 5MP ...Started
Restore all ENGLISH files on 5MP ...DONE

Restore all ENGLISH files on 5MP ...DONE

Restore all SPANISH files on 5MP ...Started
Restore all SPANISH files on 5MP ...DONE

Fri Feb 14 11:08:48 EST 2003
Restore Done ( and shadowed to 5MP )!!!

Press [Enter] to continue...
```

Figure 136. Dictionary Restore Xterm Window

3.6.2.5.13. Off-line Tone generator

The off-line tone generator application provides the operator the capability to force tones repeatedly without having to schedule messages, since the current tones (NWRSAME, Alert, Transfer) are such a short burst. This utility also allows ETs to modify the duration of tones to facilitate amplitude adjustment, to backup the current tone settings or to restore tones from the previous tone settings. To perform this option, click on the ***maintenance*** menu and then select "***WRSame Tone Generator***". The ***off-line Tone Generator*** window then will be presented (see Figure 137). To continue, perform "a. SAME Tones", "b. Alert Tones" or "c. Transfer Tones" below depending on the desired operation. Please **note** that all operations require the following constraints:

1. The CRS system must be operational.
2. Prior to sending and to prevent tones from being broadcast to the public, the operator must manually disable the selected transmitter by using the Transmitter Configure window to disable the transmitter. This will prevent the broadcast of regular weather messages for that specific transmitter. The Transmitter Configure window must be closed after the transmitter is disabled.
3. The operator must re-enable the selected transmitter when done to allow regular weather messages to resume broadcast to the public.

a. **SAME Tones**. SAME tone operation window is a default window when the off-line Tone Generator program starts up or it can be selected by clicking on the "***Same Tones***" button from the ***CRS Tone Maintenance Utility*** window (see Figure 137). The possible data values associated with this window are described as follows:

1. The SAME tone amplitude can be set from 1 to 99
2. The SAME tone duration can be set from 1 to 30 seconds (the accuracy is ± 1secs)
3. The Save Amplitude button is used to dynamically update the amplitude level for the selected transmitter. The new amplitude is saved in the transmitter configuration and downloaded to the appropriate DECtalk card.

b. **Alert Tones**. Alert tone operation window can be selected by clicking on the "***Alert Tones***" button from the ***CRS Tone Maintenance Utility*** window (see Figure 138). There are five different types of alert tone that can be selected, and all the possible data values associated with this window are described as follows:

Alert Tone 1: is tone frequency at 1050Khz
Alert Tone 2: is tone frequency at 1200Khz
Alert Tone 3: is tone frequency at 1350Khz
Alert Tone 4: is tone frequency at 1500Khz
Alert Tone 5: is tone frequency at 1650Khz

1. Alert tone amplitude can be adjusted from 1 to 99

2. The Alert tone duration can be adjusted from 1 to 30 seconds (the accuracy is ± 1 secs.)

3. The Save Amplitude button is used to dynamically update the amplitude level for the selected transmitter. The new amplitude is saved in the transmitter configuration and downloaded to the appropriate DECtalk card.

c. **Transfer Tones**. Transfer tone operation window can be selected by clicking on the "***Transfer Tones***" button from the ***CRS Tone Maintenance Utility*** window (see Figure 139). There are two options that users can choose: "***Primary to Secondary***" and "***Secondary to Primary***". If the "***Primary to Secondary***" tone option is selected then the program will output the primary tone followed by the secondary tone. The "***Secondary to Primary***" option will generate the tones in the reverse order. All the possible data values associated with this window are described as follows:

1. Transfer tone amplitude can be set from 1 to 99

2. The Transfer tone duration for each tone can be set from 1 to 30 seconds (the accuracy is ± 1secs)

3. The Save Amplitude button is used to dynamically update the amplitude level for a selected transmitter. The new amplitude is saved in the transmitter configuration and downloaded to the appropriate DECtalk card.

Backup current settings:
The ***Save Settings*** button will backup the current tone settings for all transmitters to a file. The default search pattern in the File Selection Box in Figure 140 is set to "**/home/admin/*.dat**". Therefore, we suggest that the operator save the file name with extension ".dat". This will ensure that

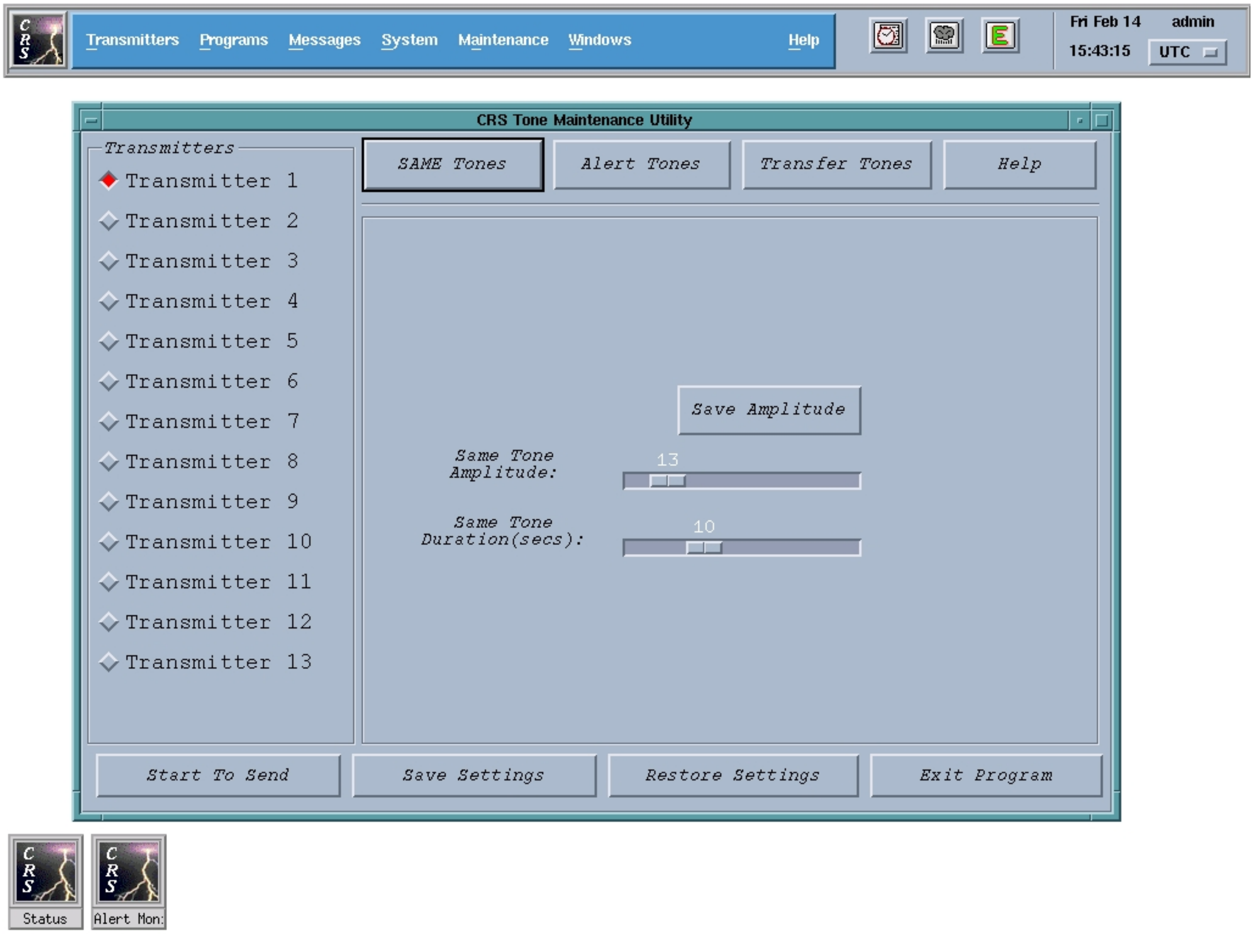
the file will be displayed for future selections.

Restore old settings:

The ***Restore Settings*** button will restore old tone settings from a previously saved file. The default search pattern in the File Selection Box in Figure 141 is set to **"/home/admin/*.dat"**. Therefore, if the file was saved using a different extension, the operator must change the search pattern in the *filter entry text field* for the file to be displayed. Please **note** that the display of tone settings is the corresponding data values in the saved file and they are not updated into the transmitter configuration until the "*Amplitude*" button is selected.

Start To Send:

The ***Start To Send*** button generates a selected tone to a selected transmitter. To avoid the accidental broadcast of tones to a live transmitter, the operator must disable the transmitter from the Transmitter Configure window. If the transmitter has not been disabled, the Tone Dialog in Figure 142 will be displayed. The operator must select *OK* to abort this task and disable the transmitter before resuming.

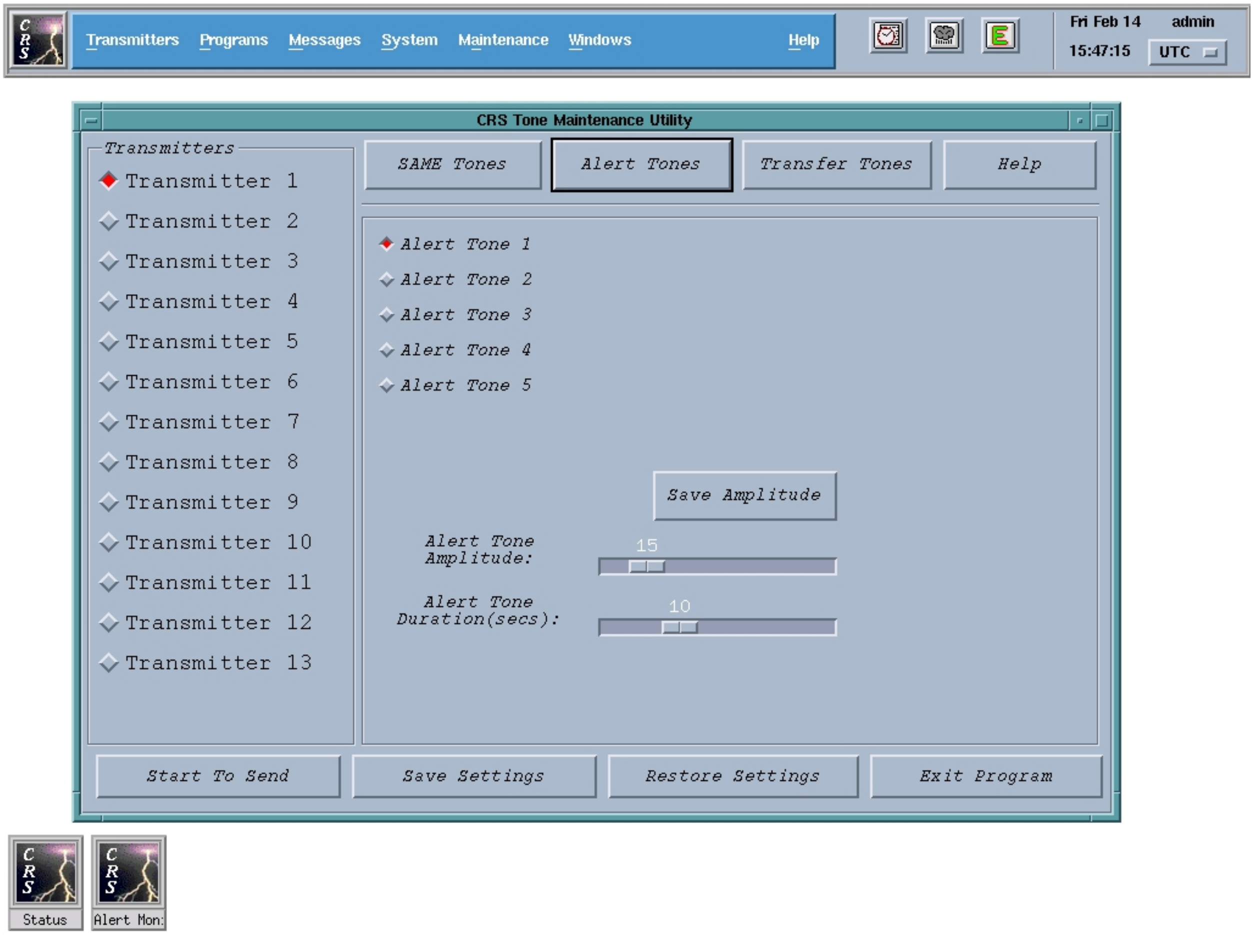

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
admin
15:43:15
UTC
CRS Tone Maintenance Utility
SAME Tones
Alert Tones
Transfer Tones
Help
Save Amplitude
Start To Send
Save Settings
Restore Settings
Exit Program
Status
Alert Mon:

Transmitters
- ● Transmitter 1
- ○ Transmitter 2
- ○ Transmitter 3
- ○ Transmitter 4
- ○ Transmitter 5
- ○ Transmitter 6
- ○ Transmitter 7
- ○ Transmitter 8
- ○ Transmitter 9
- ○ Transmitter 10
- ○ Transmitter 11
- ○ Transmitter 12
- ○ Transmitter 13

Same Tone Amplitude: 13

Same Tone Duration(secs): 10

Figure 137. Same Tone Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
admin
15:47:15
UTC
CRS Tone Maintenance Utility
Transmitters
Transmitter 1
Transmitter 2
Transmitter 3
Transmitter 4
Transmitter 5
Transmitter 6
Transmitter 7
Transmitter 8
Transmitter 9
Transmitter 10
Transmitter 11
Transmitter 12
Transmitter 13
SAME Tones
Alert Tones
Transfer Tones
Help
Alert Tone 1
Alert Tone 2
Alert Tone 3
Alert Tone 4
Alert Tone 5
Save Amplitude
Start To Send
Save Settings
Restore Settings
Exit Program
Status
Alert Mon:

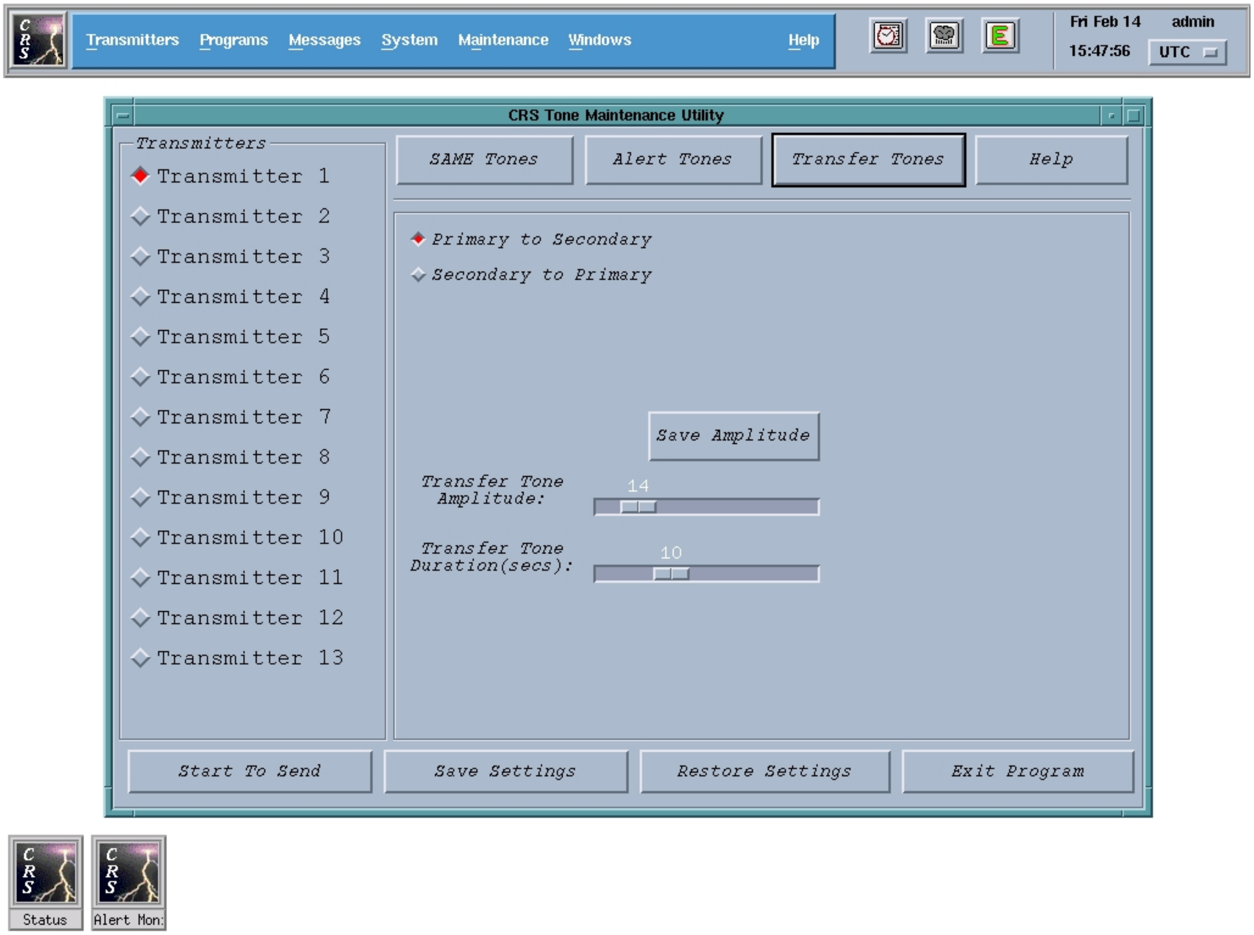
● Transmitter 1

● Alert Tone 1

Alert Tone Amplitude: 15

Alert Tone Duration(secs): 10

Figure 138. Alert Tone Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
admin
15:47:56
UTC
CRS Tone Maintenance Utility
Transmitters
Transmitter 1
Transmitter 2
Transmitter 3
Transmitter 4
Transmitter 5
Transmitter 6
Transmitter 7
Transmitter 8
Transmitter 9
Transmitter 10
Transmitter 11
Transmitter 12
Transmitter 13
SAME Tones
Alert Tones
Transfer Tones
Help
Save Amplitude
Start To Send
Save Settings
Restore Settings
Exit Program
Status
Alert Mon:

◆ Transmitter 1

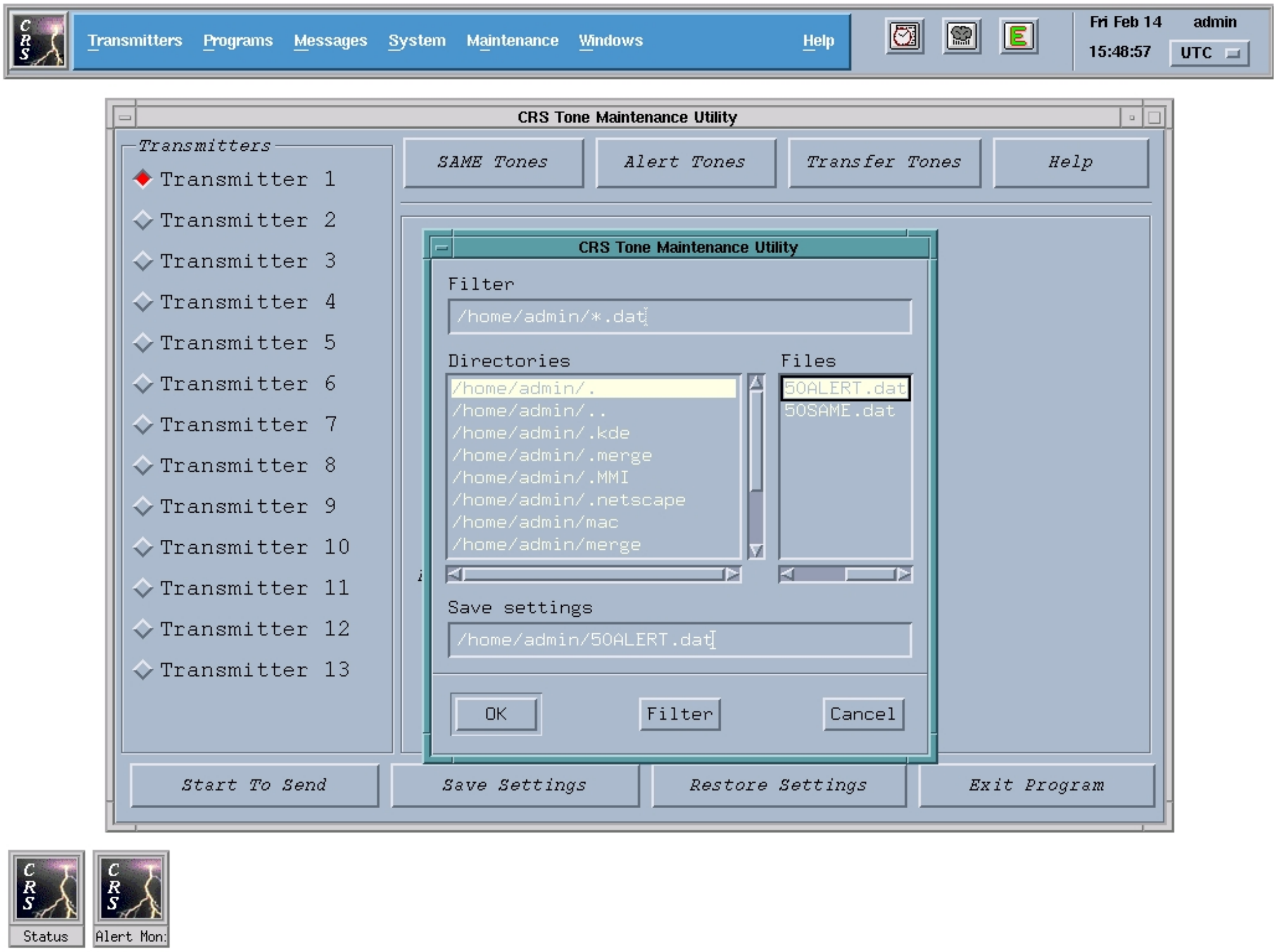
◆ Primary to Secondary

◇ Secondary to Primary

Transfer Tone Amplitude: 14

Transfer Tone Duration(secs): 10

Figure 139. Transfer Tone Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
15:48:57
admin
UTC
CRS Tone Maintenance Utility
Transmitters
Transmitter 1
Transmitter 2
Transmitter 3
Transmitter 4
Transmitter 5
Transmitter 6
Transmitter 7
Transmitter 8
Transmitter 9
Transmitter 10
Transmitter 11
Transmitter 12
Transmitter 13
SAME Tones
Alert Tones
Transfer Tones
Help
CRS Tone Maintenance Utility
Filter
Directories
Files
Save settings
OK
Filter
Cancel
Start To Send
Save Settings
Restore Settings
Exit Program
Status
Alert Mon:

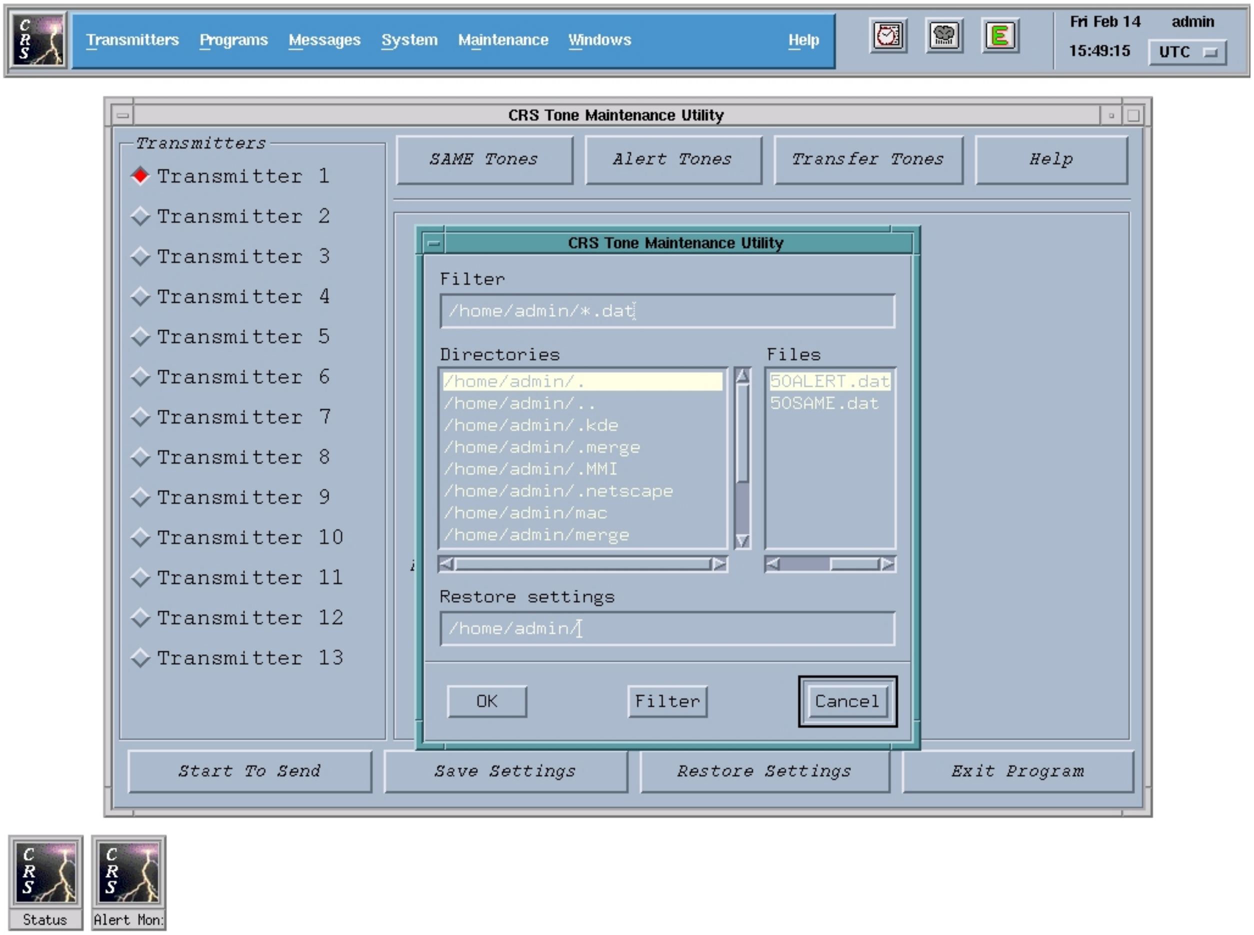
Filter: /home/admin/*.dat

Directories:
/home/admin/.
/home/admin/..
/home/admin/.kde
/home/admin/.merge
/home/admin/.MMI
/home/admin/.netscape
/home/admin/mac
/home/admin/merge

Files:
50ALERT.dat
50SAME.dat

Save settings: /home/admin/50ALERT.dat

Figure 140. Save Settings Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
admin
15:49:15
UTC
CRS Tone Maintenance Utility
Transmitters
Transmitter 1
Transmitter 2
Transmitter 3
Transmitter 4
Transmitter 5
Transmitter 6
Transmitter 7
Transmitter 8
Transmitter 9
Transmitter 10
Transmitter 11
Transmitter 12
Transmitter 13
SAME Tones
Alert Tones
Transfer Tones
Help
CRS Tone Maintenance Utility
Directories
Files
OK
Filter
Cancel
Start To Send
Save Settings
Restore Settings
Exit Program
Status
Alert Mon:

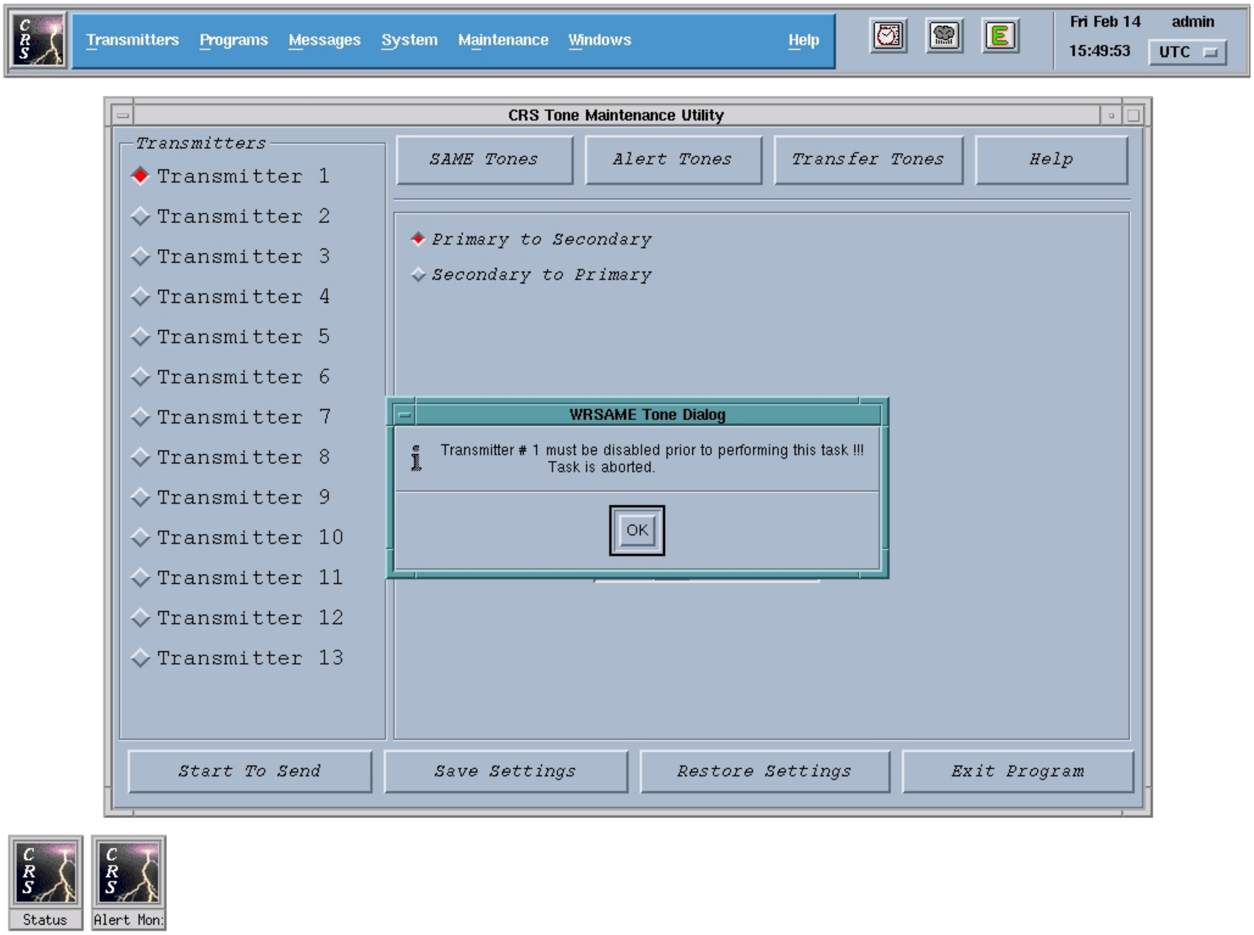
Filter: /home/admin/*.dat

Directories:
/home/admin/.
/home/admin/..
/home/admin/.kde
/home/admin/.merge
/home/admin/.MMI
/home/admin/.netscape
/home/admin/mac
/home/admin/merge

Files:
50ALERT.dat
50SAME.dat

Restore settings: /home/admin/

Figure 141. Restore Settings Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Feb 14
admin
15:49:53
UTC
CRS Tone Maintenance Utility
Transmitters
Transmitter 1
Transmitter 2
Transmitter 3
Transmitter 4
Transmitter 5
Transmitter 6
Transmitter 7
Transmitter 8
Transmitter 9
Transmitter 10
Transmitter 11
Transmitter 12
Transmitter 13
SAME Tones
Alert Tones
Transfer Tones
Help
Primary to Secondary
Secondary to Primary
WRSAME Tone Dialog
OK
Start To Send
Save Settings
Restore Settings
Exit Program
Status
Alert Mon:

Transmitter # 1 must be disabled prior to performing this task !!!
Task is aborted.

Figure 142. Tone Dialog

3.6.2.6. Windows Menu

This menu allows you to obtain a list of currently active CRS applications (or windows). To perform the menu option, click the **Windows** menu, whereupon a list of the currently active windows will be displayed. If you have just logged onto CRS (and haven’t yet accessed/executed any other CRS applications) and then select the **Windows** menu, the list displayed will contain only the ***Alert Monitor*** and ***Status*** windows. If you have selected other CRS applications (and thus have other windows currently open), these entries will also appear and you can, by clicking one of them, cause the associated window to move to the front of the window stack. If the item had previously been iconified, it will also move to the top of the window stack.

3.6.2.7. Help Menu

The **Help** menu bar component features four submenu options, i.e., On Window, Contents, About (CRS), and Help Tips, which allow you to obtain help-related information concerning CRS. These options are described below in paragraphs 3.6.2.7.1 through 3.6.2.7.4, respectively.

3.6.2.7.1. On Window

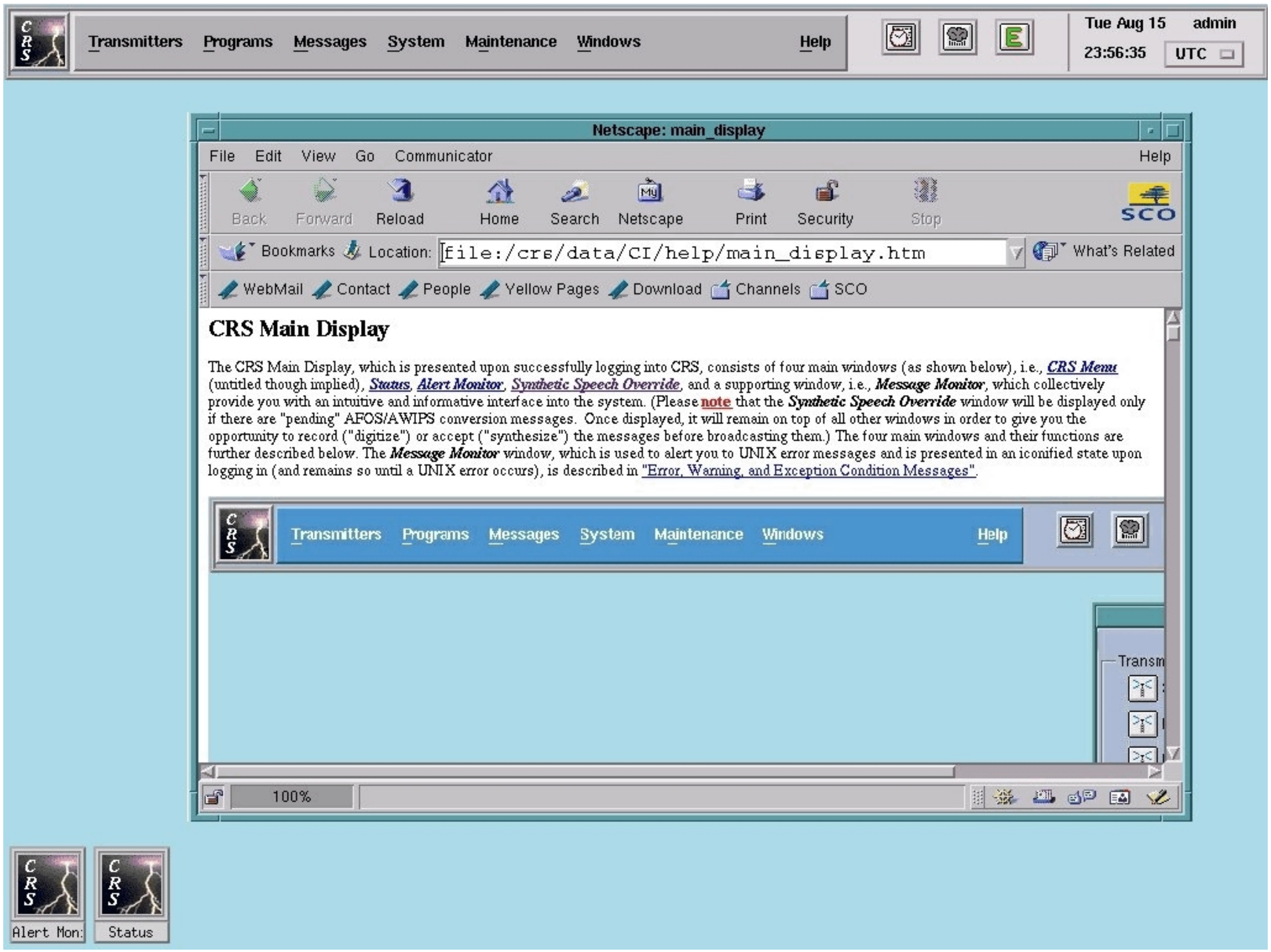
This submenu option allows you to obtain Help information specific to the CRS Main Display. To perform the On Window option, click the **Help** menu and then select "On Window". The information (i.e., paragraph 3.5.2.1 of this manual) will then be displayed via the Netscape Navigator (see Figure 143). Please **note** that this option behaves the same way as if you were to invoke the online help from within a particular CRS window via the Help menu or via the HELP hotkey. That is, the information displayed would be directly related to the window from which it was invoked.

Upon viewing the Help information, you can either close the window or access additional information, as explained in the following paragraph.

3.6.2.7.2. Contents

This submenu option allows you to obtain detailed Help information about all CRS functions. It (like the On Window option) is based on this manual (i.e., the CRS Site Operator's Manual). Whereas the On Window option presents information from the Site Operator's Manual that is directly related to the CRS Main Display, the Contents option initially presents a Table of Contents from which you can then access information about any CRS function (including, of course, CRS Main Display and Menu operations). The only significant difference between the On Window and the Contents option is the initial help window content (i.e., specific CRS function information versus a Table of Contents listing all CRS menu functions).

To perform the Contents option, click the **Help** menu and then select "Contents". A Table of Contents will then be displayed via the Netscape Navigator (see Figure 144), and you can then access and display information as needed. Do this by placing the cursor (actually a hand icon) on the desired Help topic and then clicking the mouse. The respective information will then be displayed. If desired, you can then access additional information on another Help topic by clicking the Back button and repeating the above steps.

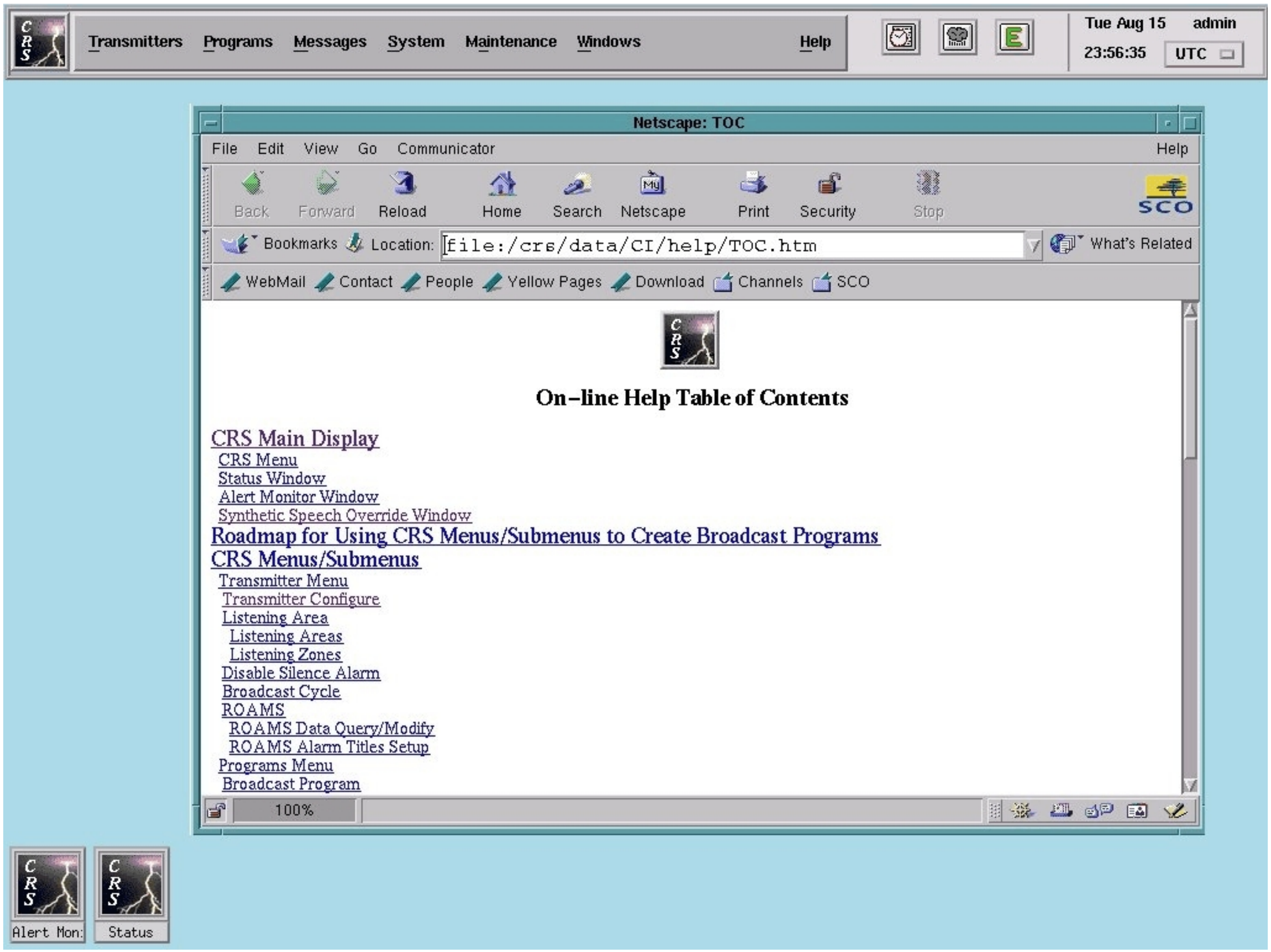

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:56:35
UTC
Netscape: main_display
File
Edit
View
Go
Communicator
Help
Back
Forward
Reload
Home
Search
Netscape
Print
Security
Stop
SCO
Bookmarks
Location:
What's Related
WebMail
Contact
People
Yellow Pages
Download
Channels
SCO
Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Transm
100%
Alert Mon:
Status

Location: `file:/crs/data/CI/help/main_display.htm`

CRS Main Display

The CRS Main Display, which is presented upon successfully logging into CRS, consists of four main windows (as shown below), i.e., ***CRS Menu*** (untitled though implied), ***Status***, ***Alert Monitor***, ***Synthetic Speech Override***, and a supporting window, i.e., ***Message Monitor***, which collectively provide you with an intuitive and informative interface into the system. (Please **note** that the ***Synthetic Speech Override*** window will be displayed only if there are "pending" AFOS/AWIPS conversion messages. Once displayed, it will remain on top of all other windows in order to give you the opportunity to record ("digitize") or accept ("synthesize") the messages before broadcasting them.) The four main windows and their functions are further described below. The ***Message Monitor*** window, which is used to alert you to UNIX error messages and is presented in an iconified state upon logging in (and remains so until a UNIX error occurs), is described in "Error, Warning, and Exception Condition Messages".

Figure 143. "On Window" Help Display


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:56:35
UTC
Netscape: TOC
File
Edit
View
Go
Communicator
Help
Back
Forward
Reload
Home
Search
Netscape
Print
Security
Stop
SCO
Bookmarks
Location:
What's Related
WebMail
Contact
People
Yellow Pages
Download
Channels
SCO
100%
Alert Mon:
Status

Location: file:/crs/data/CI/help/TOC.htm

On-line Help Table of Contents

CRS Main Display
- CRS Menu
- Status Window
- Alert Monitor Window
- Synthetic Speech Override Window

Roadmap for Using CRS Menus/Submenus to Create Broadcast Programs

CRS Menus/Submenus
- Transmitter Menu
  - Transmitter Configure
  - Listening Area
    - Listening Areas
    - Listening Zones
  - Disable Silence Alarm
  - Broadcast Cycle
  - ROAMS
    - ROAMS Data Query/Modify
    - ROAMS Alarm Titles Setup
- Programs Menu
  - Broadcast Program

Figure 144. "Contents" Help Display

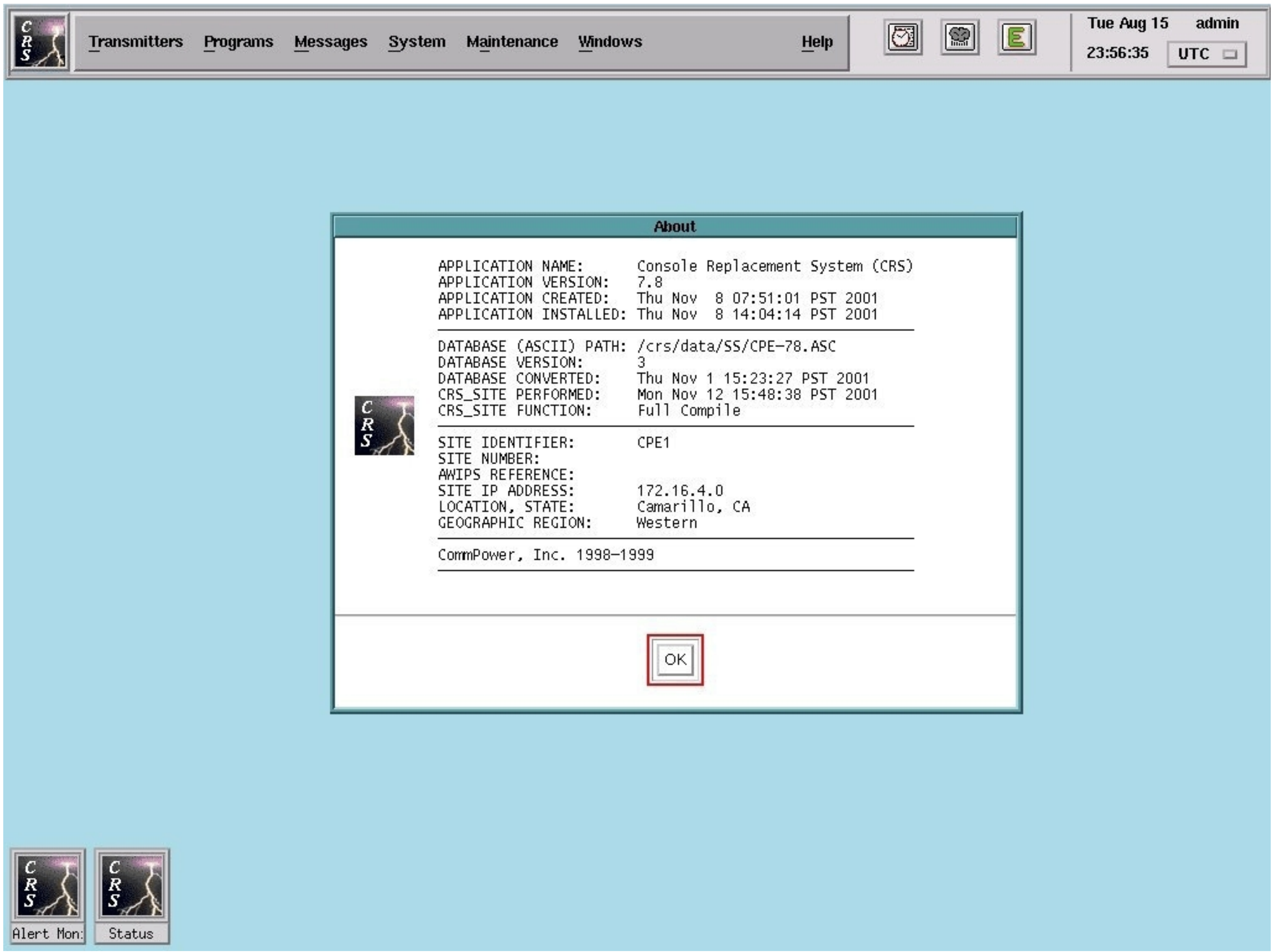
When finished with the online Help, you can close the Help window via the Close option in the File menu. If at any time you find you need help with using the Netscape Navigator, you can obtain the appropriate information via the Netscape Help menu bar.

3.6.2.7.3. About (CRS)

This submenu option allows you to obtain release or version information about the CRS software. To perform the option, click the **Help** menu and then select "About". The information will then be displayed in the form of an independent display window (see Figure 145).

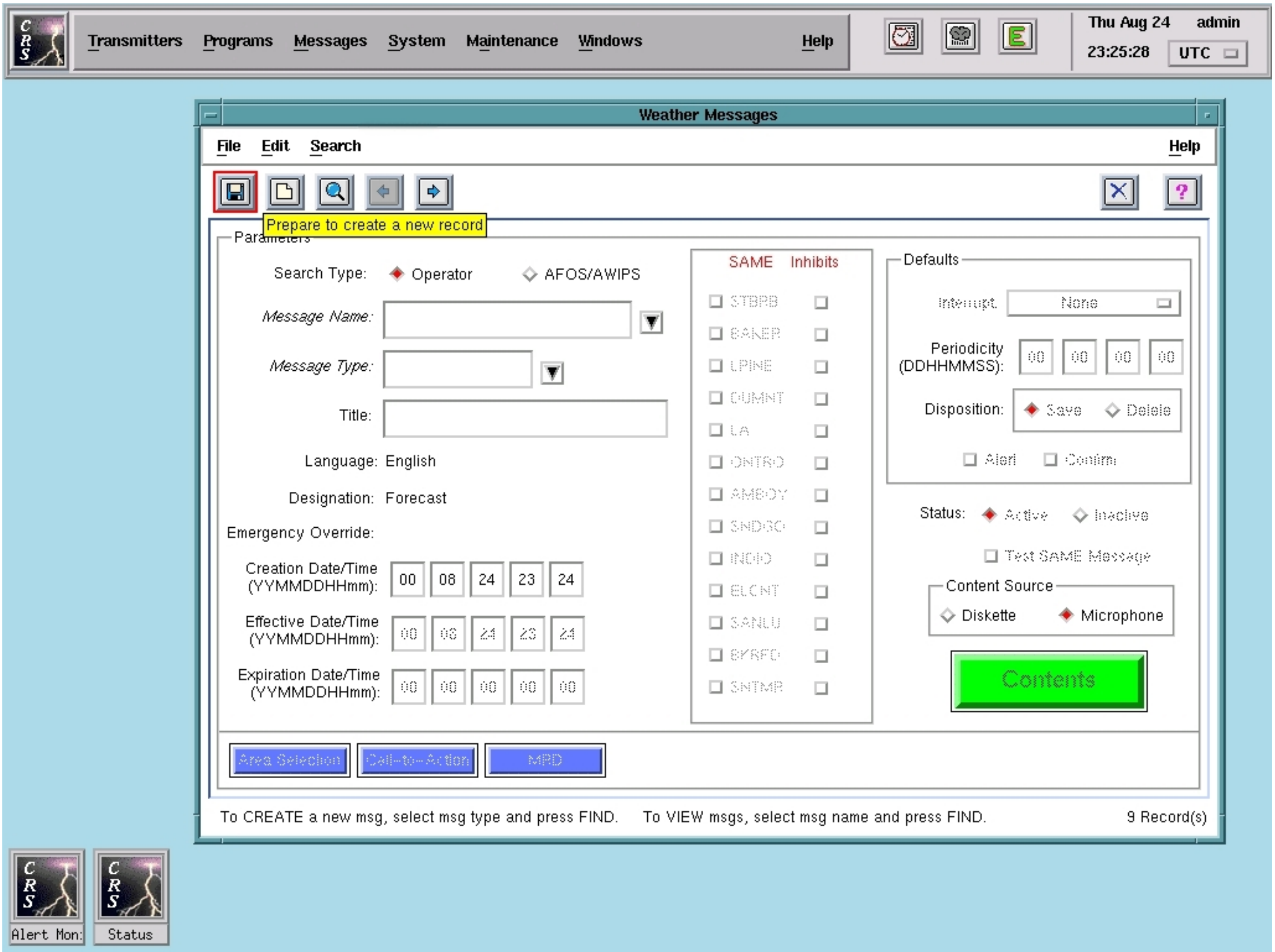
3.6.2.7.4. Help Tips

This submenu option (which is enabled by default) allows you to obtain help information pertaining to the CRS hotkeys. To obtain the help information, merely place the pointer on the desired hotkey and a text string describing the hotkey's function will be displayed (see Figure 146). To disable (or re-enable) the submenu option, merely select the submenu (i.e., "Help Tips") in the **Help** menu.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:56:35
UTC
About
OK
Alert Mon:
Status

```
APPLICATION NAME:      Console Replacement System (CRS)
APPLICATION VERSION:   7.8
APPLICATION CREATED:   Thu Nov  8 07:51:01 PST 2001
APPLICATION INSTALLED: Thu Nov  8 14:04:14 PST 2001

DATABASE (ASCII) PATH: /crs/data/SS/CPE-78.ASC
DATABASE VERSION:      3
DATABASE CONVERTED:    Thu Nov 1 15:23:27 PST 2001
CRS_SITE PERFORMED:    Mon Nov 12 15:48:38 PST 2001
CRS_SITE FUNCTION:     Full Compile

SITE IDENTIFIER:       CPE1
SITE NUMBER:
AWIPS REFERENCE:
SITE IP ADDRESS:       172.16.4.0
LOCATION, STATE:       Camarillo, CA
GEOGRAPHIC REGION:     Western

CommPower, Inc. 1998-1999
```

Figure 145. About Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Aug 24
admin
23:25:28
UTC
Weather Messages
File
Edit
Search
Help
Parameters
SAME
Inhibits
Defaults
Contents
Area Selection
Call-to-Action
MRD
Alert Mon:
Status

Prepare to create a new record

Search Type: ● Operator ○ AFOS/AWIPS

Message Name:

Message Type:

Title:

Language: English

Designation: Forecast

Emergency Override:

Creation Date/Time (YYMMDDHHmm): 00 08 24 23 24

Effective Date/Time (YYMMDDHHmm): 00 08 24 23 24

Expiration Date/Time (YYMMDDHHmm): 00 00 00 00 00

SAME	Inhibits
☐ STBPB	☐
☐ BAKER	☐
☐ LPINE	☐
☐ DUMNT	☐
☐ LA	☐
☐ ONTRO	☐
☐ AMBOY	☐
☐ SNDGO	☐
☐ INDIO	☐
☐ ELCNT	☐
☐ SANLU	☐
☐ BYRFD	☐
☐ SNTMP	☐

Interrupt: None

Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ● Save ○ Delete

☐ Alert ☐ Confirm

Status: ● Active ○ Inactive

☐ Test SAME Message

Content Source: ○ Diskette ● Microphone

To CREATE a new msg, select msg type and press FIND. To VIEW msgs, select msg name and press FIND. 9 Record(s)

Figure 146. Help Tip Information

3.7. CRS Support Utilities

CRS provides a number of support utilities that are selectable via a pop-up menu from within the CRS man/machine interface. To access these, merely move the cursor to a blank area of the CRS Main Display and click the left mouse button. The **CRS Utilities** menu will then be displayed. The support utilities provided in this menu are listed and briefly described immediately below. Some of the more complex ones, i.e., XCRS_SITE Utility, CRS Log Viewer, and Print Monitor, are elaborated on in the paragraphs that follow. Others also requiring further elaboration, i.e., ACP 1 & 2 Diagnostics, are discussed at length in the *CRS Maintenance Manual* (specifically, paragraph 4.4.3.2.3.2).

- XCRS_SITE Utility - allows you to perform site configuration activities, including viewing, editing, and recompiling the ASCII site configuration file; adding transmitters to the configuration; and displaying system configuration/status information. It also allows you to start and stop CRS.
- CRS Log Viewer - allows you to view CRS logs as they are being updated. It also allows you to configure CRS logs.
- Print Monitor - allows you to view, submit, and delete print jobs for any printer configured through the UnixWare desktop.
- Message Monitor - allows you to restart the ***Message Monitor*** window.
- Lock Screen - allows you to lock the screen and thus prevent another operator from accessing the CRS interface from your operator terminal.
- Refresh - allows you to refresh the current window display.
- Shuffle up - allows you to shuffle windows forward (or "up") in the window stack.
- Shuffle down - allows you to shuffle windows backward (or "down") in the window stack.
- ACP 1 Diagnostics - allows you to verify or confirm the communications link between the MP and ACP 1 via interaction with ACP 1 front panel indicators.
- ACP 2 Diagnostics - allows you to verify or confirm the communications link between the MP and ACP 2 via interaction with ACP 2 front panel indicators.
- Clock - allows you to display the Unix Operating System date and time.

3.7.1. XCRS_SITE Utility

As explained above, the XCRS_SITE Utility can be invoked by positioning the cursor in a blank area of the CRS Main Display, clicking the left mouse button, and then selecting "XCRS_SITE Utility" from the **CRS Utilities** menu. Upon doing so, the ***XCRS_SITE - Site Configuration Developer*** window will then be presented (see Figure 147). The buttons provided in (and the functions afforded by) the window are described as follows. Please **note** that if CRS is currently running, then only the *Stop CRS System*, *Start CRS System*, *Display System Config*, *Display System Status*, *Clear*, and *Exit* buttons will be available. Otherwise, all of the buttons will be available (i.e., CRS is not currently running).

- *Select ASCII Site Setup* - allows you to select the appropriate ASCII site configuration file for the purpose of viewing, editing, or recompiling. To do this, merely click the *Select ASCII Site Setup* button, select the desired ASCII configuration file from the ***Site Configuration Files*** window (see Figure 149), and click the *OK* button. The ***Site Configuration Files*** window will then be closed, and the selected ASCII file name will be transferred to the ASCII Site Setup File field in the ***XCRS_SITE - Site Configuration Developer*** window.

- *Start Site Configure* - allows you to recompile the specified ASCII site configuration file. To do this, merely select the ASCII site configuration file via the *Select ASCII Site Setup* button (as described above), select the appropriate option in the CRS Site Options field, and then click the *Start Site Configure* button. The ASCII site configuration file will then be recompiled.

  Please **note** that the Initialize System Configuration and Database option will initialize both the configuration and the database. The Initialize System Configuration Only option, on the other hand, will initialize only the configuration, thereby allowing you to preserve your message database. The Initialize System Configuration w/backup option will initialize your system configuration and database but also copy (or create a backup version) of your current configuration and database. If *Do NOT CLEAR the Dictionary-related table data* is **not** selected, all the DECtalk dictionary-related database tables will be wiped clean. The default is not to select this option, so normally the old DECtalk dictionary-related database tables will be retained. If *Delete Error and Transmit Database Tables* option is selected, all the Activity (Transmit/Error) logs will be wiped clean. The default is not to select this option, so normally the old Transmitter/Error logs will be retained. The Test Transmitter slider allows you constrain the number of transmitters for purposes of testing.

- *View/Edit ASCII file* - allows you to view and/or edit the specified ASCII site configuration file. To do this, merely select the ASCII site configuration file via the *SelectASCIISiteSetup* button (as described above), and then click the *View/Edit ASCII file* button. A text editor window will then be presented, displaying the contents of the selected ASCII site configuration file. View and/or edit the file's contents as desired, using the scroll bar to scroll forward and backward in the file. If you make changes to the file, select the Save and Exit options to save the changes and exit the text editor window, respectively. For a detailed explanation of the ASCII configuration file, please refer to the *CRS ASCII Database Specification*.

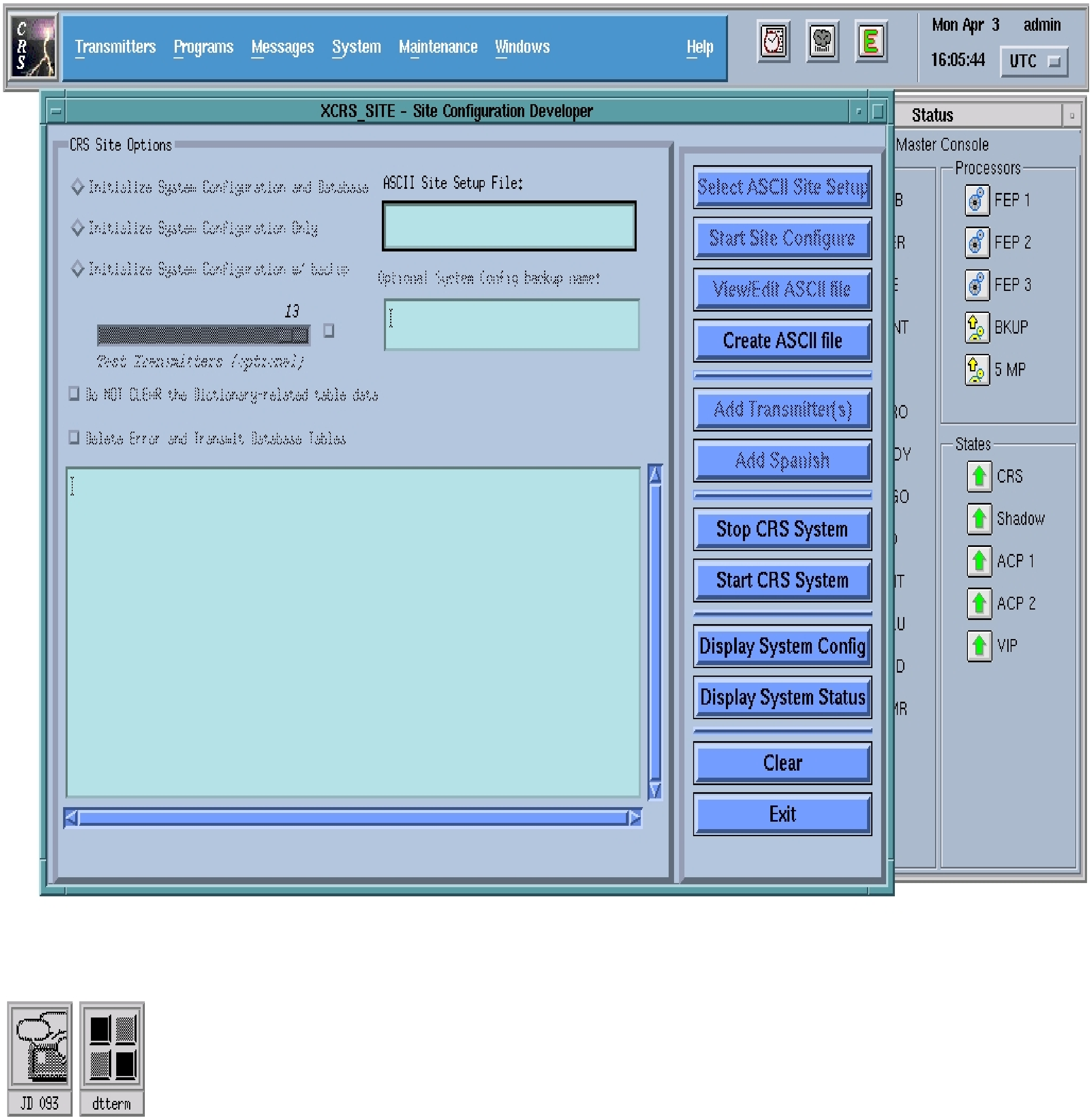
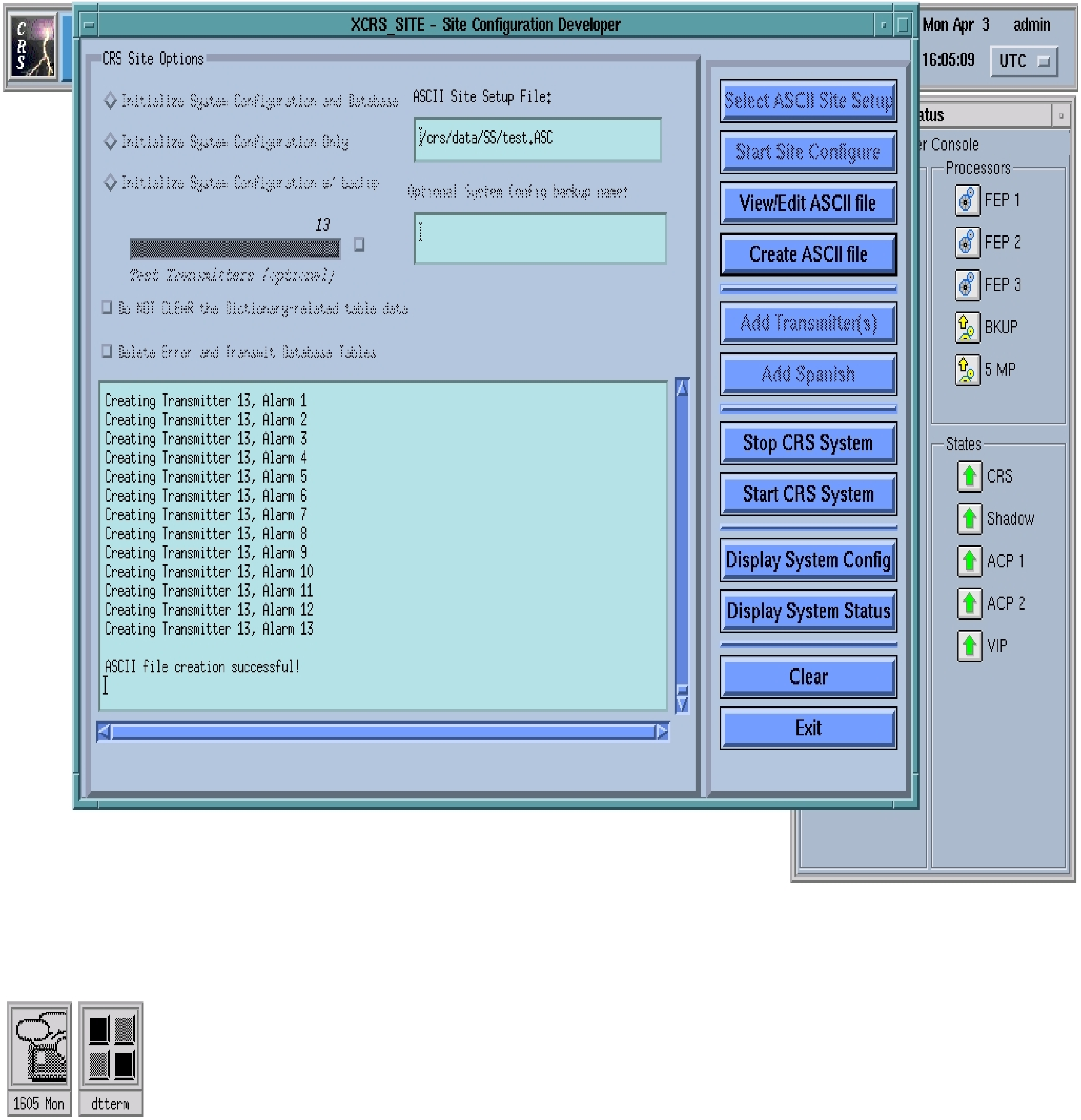

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
16:05:44
UTC
XCRS_SITE - Site Configuration Developer
CRS Site Options
◇ Initialize System Configuration and Database
◇ Initialize System Configuration Only
◇ Initialize System Configuration w/ backup
13
Test Transmitters (optional)
☐ Do NOT CLEAR the Dictionary-related table data
☐ Delete Error and Transmit Database Tables
ASCII Site Setup File:
Optional System Config backup name:
Select ASCII Site Setup
Start Site Configure
View/Edit ASCII file
Create ASCII file
Add Transmitter(s)
Add Spanish
Stop CRS System
Start CRS System
Display System Config
Display System Status
Clear
Exit
Status
Master Console
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
JD 093
dtterm

Figure 147. XCRS_SITE - Site Configuration Developer Window

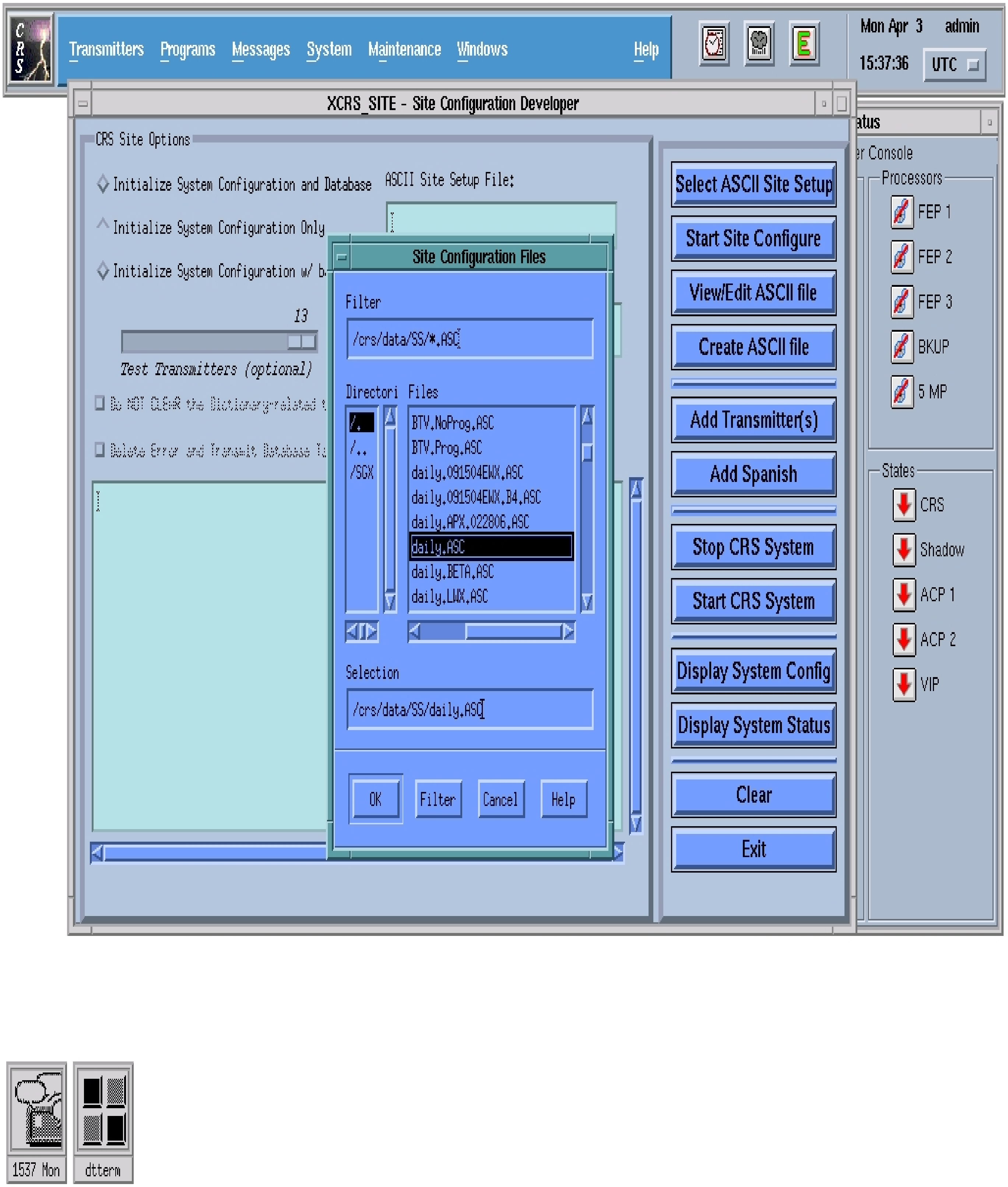
After a successful run of creating an ASCII file you should see the similar results are displayed below:


XCRS_SITE - Site Configuration Developer
CRS Site Options
Initialize System Configuration and Database
Initialize System Configuration Only
Initialize System Configuration w/ backup
Optional System Config backup name:
13
Test Transmitters (optional)
Do NOT CLEAR the Dictionary-related table data
Delete Error and Transmit Database Tables
Select ASCII Site Setup
Start Site Configure
View/Edit ASCII file
Create ASCII file
Add Transmitter(s)
Add Spanish
Stop CRS System
Start CRS System
Display System Config
Display System Status
Clear
Exit
Mon Apr 3
admin
16:05:09
UTC
atus
r Console
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
1605 Mon
dtterm

ASCII Site Setup File: /crs/data/SS/test.ASC

```
Creating Transmitter 13, Alarm 1
Creating Transmitter 13, Alarm 2
Creating Transmitter 13, Alarm 3
Creating Transmitter 13, Alarm 4
Creating Transmitter 13, Alarm 5
Creating Transmitter 13, Alarm 6
Creating Transmitter 13, Alarm 7
Creating Transmitter 13, Alarm 8
Creating Transmitter 13, Alarm 9
Creating Transmitter 13, Alarm 10
Creating Transmitter 13, Alarm 11
Creating Transmitter 13, Alarm 12
Creating Transmitter 13, Alarm 13

ASCII file creation successful!
```

Figure 148. XCRS_SITE - Results From Create ASCII File


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
15:37:36
UTC
XCRS_SITE - Site Configuration Developer
CRS Site Options
Initialize System Configuration and Database
Initialize System Configuration Only
Initialize System Configuration w/ b
ASCII Site Setup File:
13
Test Transmitters (optional)
Do NOT CLEAR the Dictionary-related
Delete Error and Transmit Database
Site Configuration Files
Filter
Directori
Files
Selection
OK
Filter
Cancel
Help
Select ASCII Site Setup
Start Site Configure
View/Edit ASCII file
Create ASCII file
Add Transmitter(s)
Add Spanish
Stop CRS System
Start CRS System
Display System Config
Display System Status
Clear
Exit
atus
r Console
Processors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
States
CRS
Shadow
ACP 1
ACP 2
VIP
1537 Mon
dtterm

Filter: /crs/data/SS/*.ASC

Directories:
/.
/..
/SGX

Files:
BTV.NoProg.ASC
BTV.Prog.ASC
daily.091504EWX.ASC
daily.091504EWX.B4.ASC
daily.APX.022806.ASC
daily.ASC
daily.BETA.ASC
daily.LWX.ASC

Selection: /crs/data/SS/daily.ASC

Figure 149. Site Configuration Files Window

- *Create ASCII File* - allows you to create an ASCII database file. To do this, merely select the *Create ASCII File* button via *XCRS_SITE Configuration Developer Menu.* The *Create ASCII File* window will then be presented (see below). Follow the procedures decribed in the *Create ASCII File* window and if you choose an existsing name you must click on *FORCED rewrite of selected file* to overwrite the existing ASCII file. Click on *Create ASCII File* button to start and when the process is complete you will see the results displayed on the *XCRS_SITE Configuration Developer* window. Follow the procedure in Part I if you wish to view the file you have created or click *exit* button to exit window.

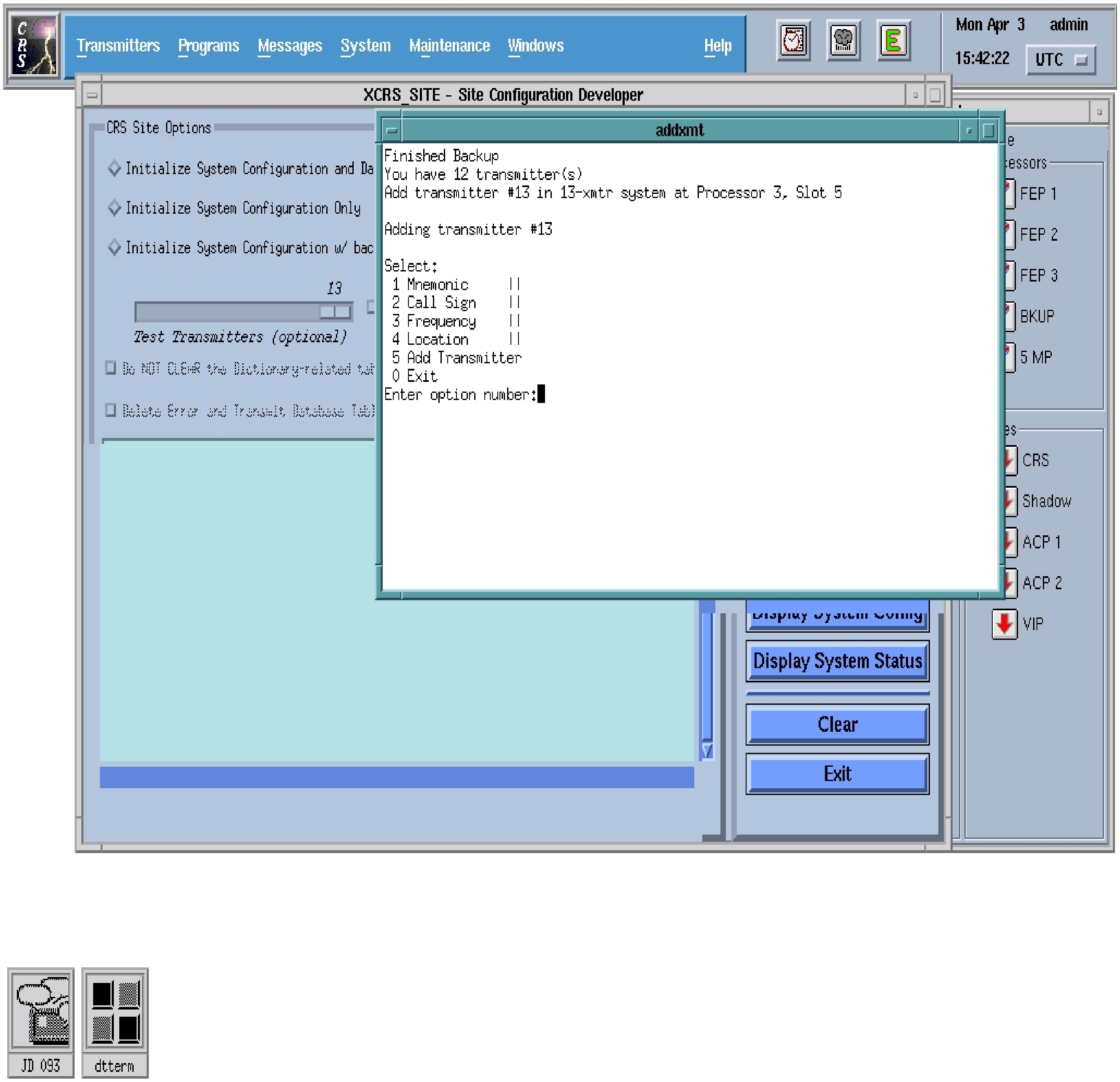
- *Add Transmitter(s)* - allows you to add a transmitter to the current configuration (provided, of course, that the hardware required to support the new transmitter is installed). To do this, merely select the appropriate ASCII site configuration file via the *Select ASCII Site Setup* button (as described above) and then select the *Add Transmitter(s)* button. The ***addxmt*** window will then be presented (see Figure 150), allowing you to add transmitters to your current configuration via an interactive script. Provide the necessary information, i.e., Mnemonic, Call Sign, Frequency, and Location, using the script and then select number "5" in the script to add the transmitter. Repeat this for any subsequent transmitters that you wish to add and then select number "0" in the script to exit the ***addxmt*** window. Select Yes in response to the confirmation prompt in order to recompile the ASCII site configuration file. After the compilation has completed, use the *Start CRS System* button (as described below) to restart CRS.

  Please **note** that the add transmitter operation automatically initializes the system configuration only (or the second option in the CRS Site Options field) and consequently (1) you don't need to (nor can you) select one of these options and (2) your message database will be preserved.

- *Add Spanish* - allows you to add Spanish capability to your current configuration. To do this, merely select the appropriate site configuration file via the *SelectASCIISiteSetup* button (as described above) and then select the *Add Spanish* button. The ***addspa*** window will then be presented (see Figure 151), allowing you to add Spanish capability to your current configuration via an interactive script. To continue, perform the following steps:

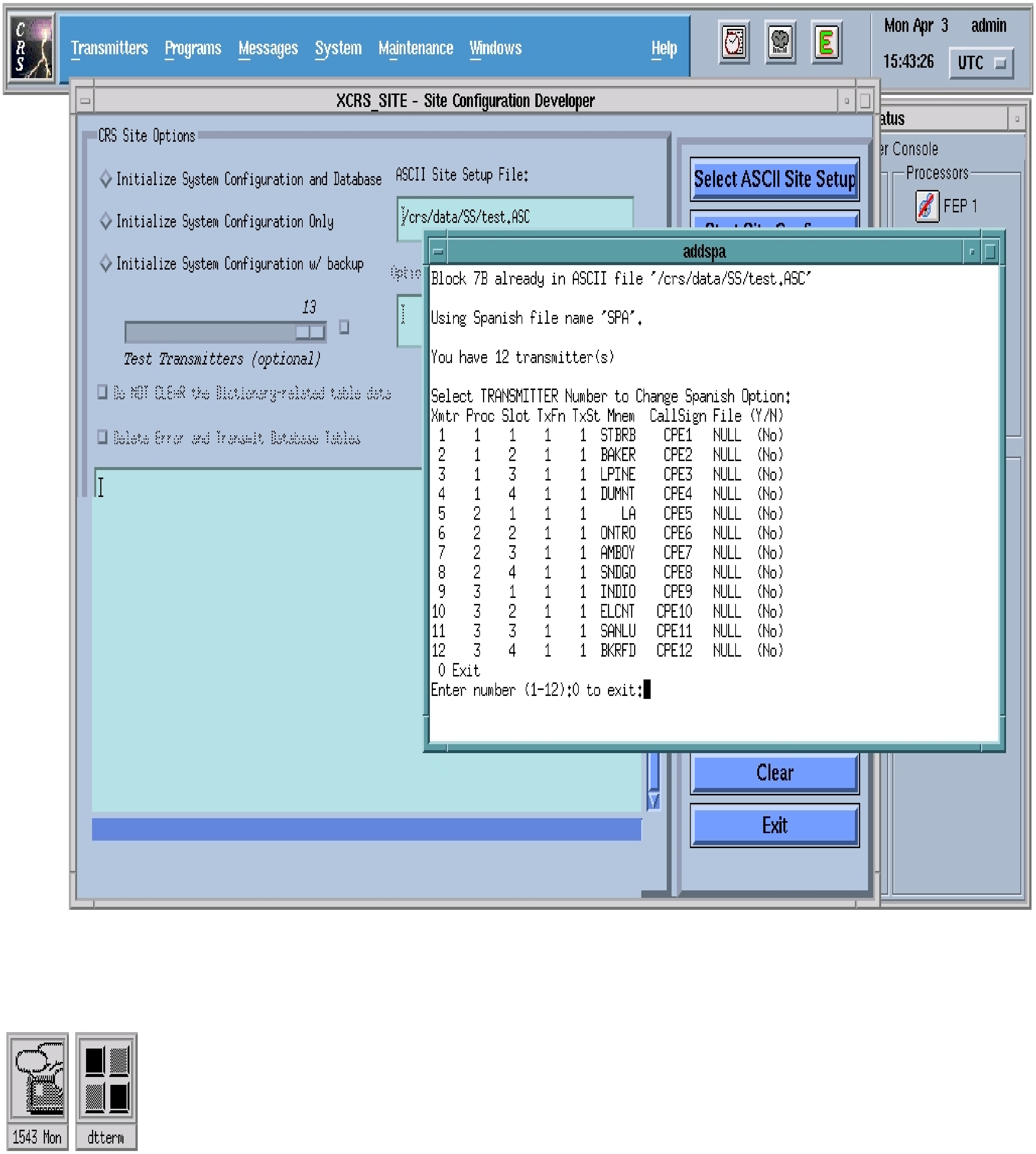
  1. Pick the transmitter that you wish to add Spanish to by selecting the corresponding number followed by a return. The value will change from No to Yes for the selected transmitter. Repeat this for any additional

transmitters that you wish to add Spanish to and then select "0". The script will change, prompting you to select the message types with which to associate Trailers.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
15:42:22
UTC
XCRS_SITE - Site Configuration Developer
CRS Site Options
Initialize System Configuration and Da
Initialize System Configuration Only
Initialize System Configuration w/ bac
13
Test Transmitters (optional)
Do NOT CLEAR the Dictionary-related tab
Delete Error and Transmit Database Tabl
addxmt
essors
FEP 1
FEP 2
FEP 3
BKUP
5 MP
CRS
Shadow
ACP 1
ACP 2
VIP
Display System Config
Display System Status
Clear
Exit
JD 093
dtterm

```
Finished Backup
You have 12 transmitter(s)
Add transmitter #13 in 13-xmtr system at Processor 3, Slot 5

Adding transmitter #13

Select:
 1 Mnemonic     ||
 2 Call Sign    ||
 3 Frequency    ||
 4 Location     ||
 5 Add Transmitter
 0 Exit
Enter option number:
```

Figure 150. Adxmt Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Mon Apr 3
admin
15:43:26
UTC
XCRS_SITE - Site Configuration Developer
CRS Site Options
Initialize System Configuration and Database
Initialize System Configuration Only
Initialize System Configuration w/ backup
ASCII Site Setup File:
/crs/data/SS/test.ASC
13
Test Transmitters (optional)
Do NOT CLEAR the Dictionary-related table data
Delete Error and Transmit Database Tables
Select ASCII Site Setup
Clear
Exit
atus
r Console
Processors
FEP 1
addspa
1543 Mon
dtterm

```
Block 7B already in ASCII file '/crs/data/SS/test.ASC'

Using Spanish file name 'SPA'.

You have 12 transmitter(s)

Select TRANSMITTER Number to Change Spanish Option:
Xmtr Proc Slot TxFn TxSt Mnem  CallSign File (Y/N)
 1    1    1    1    1  STBRB   CPE1   NULL  (No)
 2    1    2    1    1  BAKER   CPE2   NULL  (No)
 3    1    3    1    1  LPINE   CPE3   NULL  (No)
 4    1    4    1    1  DUMNT   CPE4   NULL  (No)
 5    2    1    1    1     LA   CPE5   NULL  (No)
 6    2    2    1    1  ONTRO   CPE6   NULL  (No)
 7    2    3    1    1  AMBOY   CPE7   NULL  (No)
 8    2    4    1    1  SNDGO   CPE8   NULL  (No)
 9    3    1    1    1  INDIO   CPE9   NULL  (No)
10    3    2    1    1  ELCNT  CPE10   NULL  (No)
11    3    3    1    1  SANLU  CPE11   NULL  (No)
12    3    4    1    1  BKRFD  CPE12   NULL  (No)
 0 Exit
Enter number (1-12);0 to exit:
```

Figure 151. Addspa Window

2. Pick the message type by selecting the corresponding number followed by a return. An asterisk will appear next to the selected message type. Then, select "0". The script will change, prompting you to select the Trailer that you wish to associate with the previously selected message type.

3. Pick the Trailer type by selecting the corresponding number followed by a return. An asterisk will appear next to the selected Trailer. Then, select "0". The script will change, prompting you for the desired Trailer mode.

4. Pick the Trailer mode by selecting the corresponding number followed by a return. These modes include:

   a. "1" - The Trailer will only be broadcast once, i.e., following the initial broadcast of the English version of the message.

   b. "2" - The Trailer will always be broadcast, i.e., following the initial as well as all subsequent broadcasts of the English version of the message.

   Please **note** that if you don't select either of the above modes, then the default (and explicit) "Never" will be assigned as the mode. Also **note** that these modes can be changed later on, if desired, via the Message Types submenu (see paragraph 3.6.2.3.2).

5. If you wish to associate Trailers with additional message types, select yes in response to the prompt and then repeat Steps 2 through 4 above for all subsequent message type/Trailer associations. When finished, select "0" to exit the ***addspa*** window.

6. Select Yes in response to the confirmation prompt in order to recompile the ASCII site configuration file. After the compilation has completed, use the *Start CRS System* button (as described below) to restart CRS.

- *Stop CRS System* - allows you to stop the CRS system. To do this, merely click the *Stop CRS System* button, whereupon CRS will be stopped. This button has the same overall effect as the Stop System submenu (in the System Menu of the CRS Main Menu), although it brings CRS down much more quickly.

- *Start CRS System* - allows you to start the CRS system. To do this, merely click the *Start CRS System* button, whereupon CRS will be started. This button has the same overall effect as the Start System submenu (in the System Menu of the CRS Main Menu).

- *Display System Config* - allows you to display system configuration parameters. To do this, merely click the *Display System Config* button. System configuration parameters will then be displayed. For a detailed explanation of these parameters, please refer to the *CRS ASCII Database Specification*.

- *Display System Status* - allows you to display system status parameters. To do this, merely click the *Display System Status* button. System status parameters will then be displayed. For a detailed explanation of these parameters, please refer to the *CRS ASCII Database Specification*.

- *Clear* - allows you to clear (or delete) information from the ***XCRS_SITE - Site Configuration Developer*** window. To do this, merely click the *Clear* button. The ***XCRS_SITE - Site Configuration Developer*** window will then be cleared.

- *Exit* - allows you to exit the ***XCRS_SITE - Site Configuration Developer*** window. To do this, merely click the *Exit* button. The ***XCRS_SITE - Site Configuration Developer*** window will then be closed.

3.7.2. CRS Log Viewer

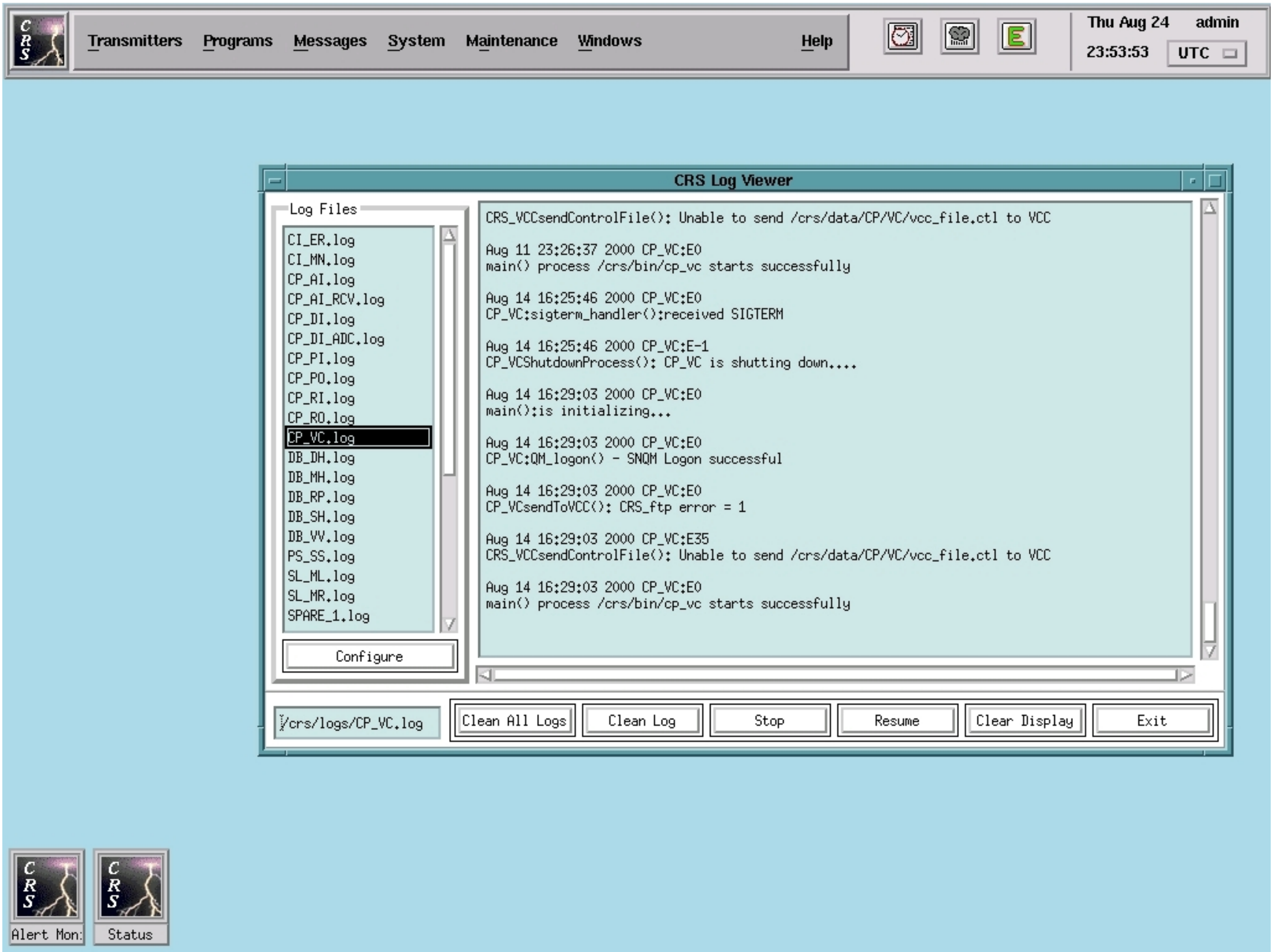
As explained above, the CRS Log Viewer can be invoked by positioning the cursor in a blank area of the CRS Main Display, clicking the left mouse button, and then selecting "CRS Log Viewer" from the **CRS Utilities** menu. Upon doing so, the ***CRS Log Viewer*** window will then be presented (see Figure 152 The buttons provided in (and the functions afforded by) the window are described as follows:

- *Configure* - allows you configure the type (or severity level) of information gathered and recorded in the logs. To do this, merely highlight the desired log and then click the *Configure* button. The ***Configuring /crs/logs/XX_XX.log*** window will then be displayed (see Figure 153). The buttons/features provided in (and the functions afforded by) the window are described as follows:

  - Radio Buttons - allow you to select one of the following log levels:

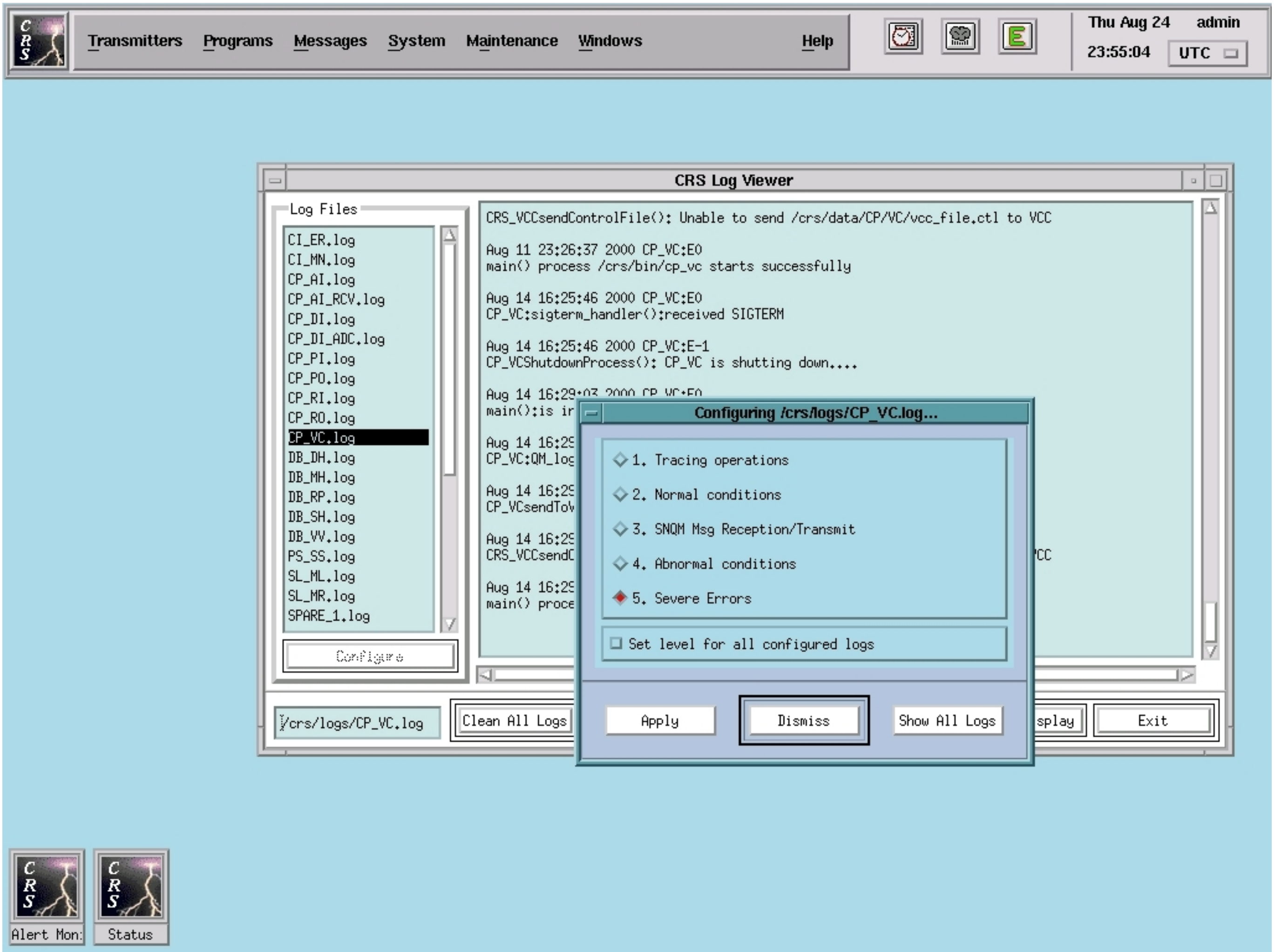
    1. Tracing Operations - records all logging information.

    2. Normal conditions - records normal operating conditions.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Aug 24
admin
23:53:53
UTC
CRS Log Viewer
Log Files
CI_ER.log
CI_MN.log
CP_AI.log
CP_AI_RCV.log
CP_DI.log
CP_DI_ADC.log
CP_PI.log
CP_PO.log
CP_RI.log
CP_RO.log
CP_VC.log
DB_DH.log
DB_MH.log
DB_RP.log
DB_SH.log
DB_VV.log
PS_SS.log
SL_ML.log
SL_MR.log
SPARE_1.log
Configure
/crs/logs/CP_VC.log
Clean All Logs
Clean Log
Stop
Resume
Clear Display
Exit
Alert Mon:
Status

```
CRS_VCCsendControlFile(): Unable to send /crs/data/CP/VC/vcc_file.ctl to VCC

Aug 11 23:26:37 2000 CP_VC:E0
main() process /crs/bin/cp_vc starts successfully

Aug 14 16:25:46 2000 CP_VC:E0
CP_VC:sigterm_handler():received SIGTERM

Aug 14 16:25:46 2000 CP_VC:E-1
CP_VCShutdownProcess(): CP_VC is shutting down....

Aug 14 16:29:03 2000 CP_VC:E0
main():is initializing...

Aug 14 16:29:03 2000 CP_VC:E0
CP_VC:QM_logon() - SNQM Logon successful

Aug 14 16:29:03 2000 CP_VC:E0
CP_VCsendToVCC(): CRS_ftp error = 1

Aug 14 16:29:03 2000 CP_VC:E35
CRS_VCCsendControlFile(): Unable to send /crs/data/CP/VC/vcc_file.ctl to VCC

Aug 14 16:29:03 2000 CP_VC:E0
main() process /crs/bin/cp_vc starts successfully
```

Figure 152. CRS Log Viewer


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Aug 24
admin
23:55:04
UTC
CRS Log Viewer
Log Files
CI_ER.log
CI_MN.log
CP_AI.log
CP_AI_RCV.log
CP_DI.log
CP_DI_ADC.log
CP_PI.log
CP_PO.log
CP_RI.log
CP_RO.log
CP_VC.log
DB_DH.log
DB_MH.log
DB_RP.log
DB_SH.log
DB_VV.log
PS_SS.log
SL_ML.log
SL_MR.log
SPARE_1.log
Configure
Clean All Logs
splay
Exit
Configuring /crs/logs/CP_VC.log...
Apply
Dismiss
Show All Logs
Alert Mon:
Status

```
CRS_VCCsendControlFile(): Unable to send /crs/data/CP/VC/vcc_file.ctl to VCC

Aug 11 23:26:37 2000 CP_VC:E0
main() process /crs/bin/cp_vc starts successfully

Aug 14 16:25:46 2000 CP_VC:E0
CP_VC:sigterm_handler():received SIGTERM

Aug 14 16:25:46 2000 CP_VC:E-1
CP_VCShutdownProcess(): CP_VC is shutting down....

Aug 14 16:29:03 2000 CP_VC:E0
main():is ir

Aug 14 16:29
CP_VC:QM_log

Aug 14 16:29
CP_VCsendToV

Aug 14 16:29
CRS_VCCsendC                                                   VCC

Aug 14 16:29
main() proce
```

/crs/logs/CP_VC.log

○ 1. Tracing operations
○ 2. Normal conditions
○ 3. SNQM Msg Reception/Transmit
○ 4. Abnormal conditions
● 5. Severe Errors

☐ Set level for all configured logs

Figure 153. Configuring /crs/logs/*XX_XX*.log Window

3. SNQM Msg Reception/Transmit - records SNQM-related logging information.

4. Abnormal Conditions - records abnormal operating conditions.

5. Severe Errors - records severe errors.

- Set Level for all Configured Logs checkbox - allows you to apply the selected log level to all configured logs.

- *Apply* - allows you to apply the selected log level to one or all logs. To do this, merely click the *Apply* button upon selecting the desired log level. The log level will then be applied to the selected log or all logs if you selected the Set Level for all Configured Logs checkbox.

- *Dismiss* - allows you close the ***Configuring /crs/logs/XX_XX.log*** window. To do this, merely click the *Dismiss* button. The ***Configuring /crs/logs/XX_XX.log*** window will then be closed.

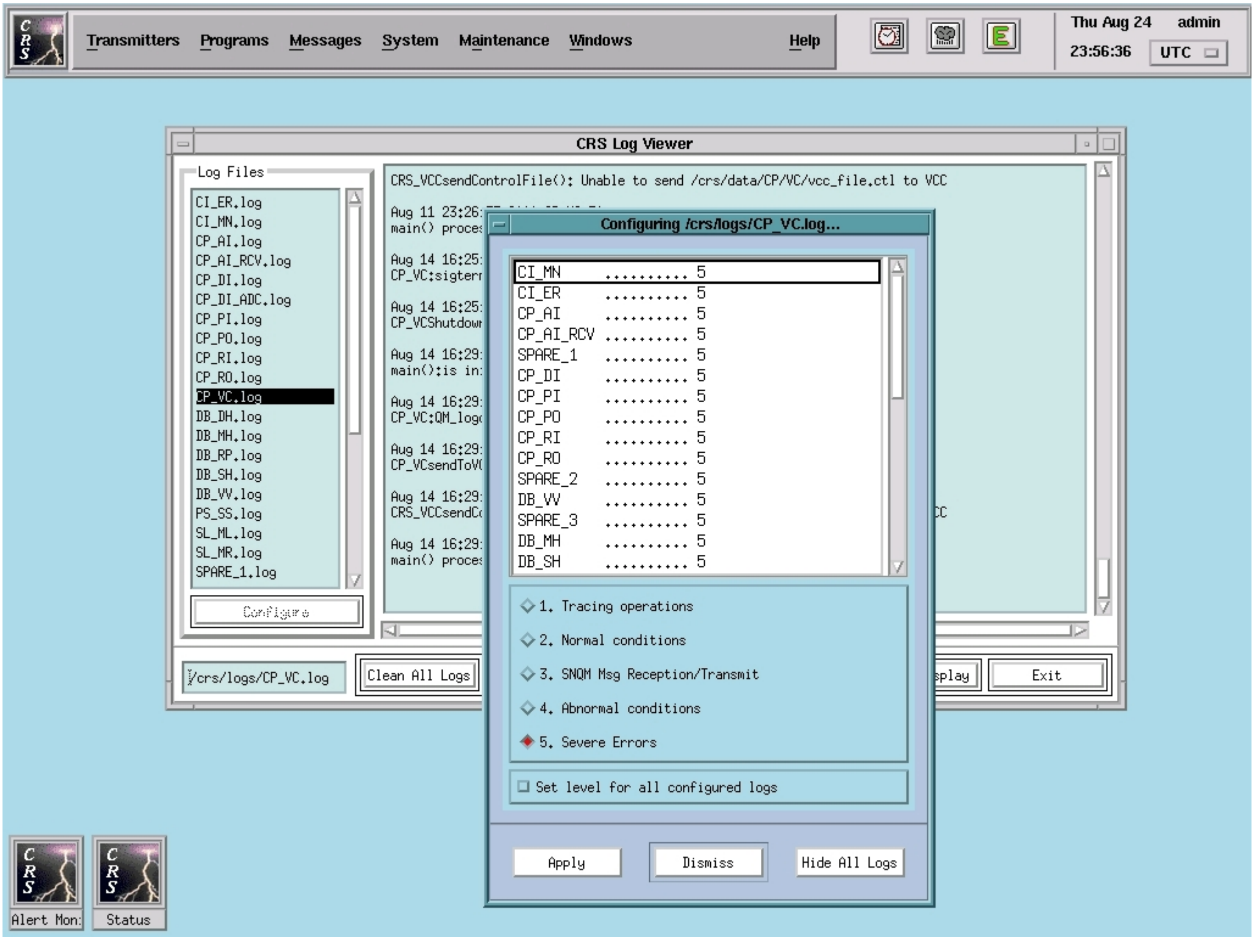
- *Show All Logs* - allows you display the log levels for all configured logs. To do this, merely click the *Show All Logs* button. All configured logs and their respective log levels will then be displayed in the ***Configuring /crs/logs/XX_XX.log*** window (see), and the *Show All Logs* button will change to *Hide All Logs* (to, of course, give you the opportunity to remove the logs from the window).

- *Clean All Logs* - allows you to clean all CRS logs. To do this, merely click the *Clear All Logs* button. The logs will then be cleaned of all logging information.

- *Clean Log* - allows you to clean a highlighted (or selected) log. To do this, merely highlight the desired log and then click the *Clean Log* button. The selected log will then be cleaned of all logging information.

- *Stop* - allows you to stop displaying logging information for a selected log. To do this, merely highlight the desired log and then click the *Stop* button. Logging information for the selected log will no longer be updated in the display area.

- *Resume* - allows you to resume displaying logging information for a selected log. To do this, merely highlight the


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Aug 24
admin
23:56:36
UTC
CRS Log Viewer
Log Files
CI_ER.log
CI_MN.log
CP_AI.log
CP_AI_RCV.log
CP_DI.log
CP_DI_ADC.log
CP_PI.log
CP_PO.log
CP_RI.log
CP_RO.log
CP_VC.log
DB_DH.log
DB_MH.log
DB_RP.log
DB_SH.log
DB_VV.log
PS_SS.log
SL_ML.log
SL_MR.log
SPARE_1.log
Configure
/crs/logs/CP_VC.log
Clean All Logs
splay
Exit
Configuring /crs/logs/CP_VC.log...
Apply
Dismiss
Hide All Logs
Alert Mon:
Status

```
CRS_VCCsendControlFile(): Unable to send /crs/data/CP/VC/vcc_file.ctl to VCC

Aug 11 23:26:
main() proce

Aug 14 16:25:
CP_VC:sigterr

Aug 14 16:25:
CP_VCShutdowr

Aug 14 16:29:
main():is in:

Aug 14 16:29:
CP_VC:QM_logo

Aug 14 16:29:
CP_VCsendToV(

Aug 14 16:29:
CRS_VCCsendCc                                                          CC

Aug 14 16:29:
main() proce
```

```
CI_MN     .......... 5
CI_ER     .......... 5
CP_AI     .......... 5
CP_AI_RCV .......... 5
SPARE_1   .......... 5
CP_DI     .......... 5
CP_PI     .......... 5
CP_PO     .......... 5
CP_RI     .......... 5
CP_RO     .......... 5
SPARE_2   .......... 5
DB_VV     .......... 5
SPARE_3   .......... 5
DB_MH     .......... 5
DB_SH     .......... 5
```

○ 1. Tracing operations
○ 2. Normal conditions
○ 3. SNQM Msg Reception/Transmit
○ 4. Abnormal conditions
● 5. Severe Errors

☐ Set level for all configured logs

Figure 154. Show All Logs

desired log and then click the *Resume* button. Logging information for the selected log will resume being updated in the display area.

- *Clear Display Area* - allows you to clear (or delete) information from the display area. To do this, merely click the *Clear Display Area* button. The display area will then be cleared.
- *Exit* - allows you to exit the ***CRS Log Viewer*** window. To do this, merely click the *Exit* button. The ***CRS Log Viewer*** window will then be closed.

3.7.3. Print Monitor

As explained above, the Print Monitor can be invoked by positioning the cursor in a blank area of the CRS Main Display, clicking the left mouse button, and then selecting "Print Monitor" from the **CRS Utilities** menu.[22] Upon doing so, the ***Print Monitor*** window will then be presented (see Figure 155). As shown in the figure, the currently configured printer and status will be displayed as part of the window title.) The buttons provided in (and the functions afforded by) the window are described as follows.

- *Submit Job...* - allows you to access, select, and submit a job (text files only!) to the printer. To do this, merely click the *Submit Job...* button, select the desired print job file from the ***Submit File To Printer*** window (see Figure 149), and then click the *Original* or *Copy* button (in the ***Submit File To Printer*** window) to submit the job. The *Original* button should be used (especially with text files larger than 1MB) if you don't intend to modify, move, and/or delete the original file during the entire printing process. The *Copy* button, on the other hand, should be used if you intend to perform any of these functions (i.e., modify, move, and/or delete the file) during printing. Once the job has been submitted, the ***Submit File To Printer*** window will be closed and the print job will be queued (for printing) and thus will appear in the print queue (see Figure 156).

  Please **note** that for those CRS windows featuring the *Print* button, i.e, ***Broadcast Cycle***, ***System Reports***, and ***Activity Logs***, this button can and should still be used to print reports or information derived from or pertaining to these

---

[22] *The Print Monitor may also be started by accessing a UNIX Shell and typing* ***xprmon &*** *at the command prompt, unless the current directory is xprmon's home directory of /usr/X/bin, in which case you must type* ***./xprmon &***. *If /usr/X/bin is not in the PATH, then (the full pathname of)* ***/usr/X/bin/xprmon &*** *must be used.*

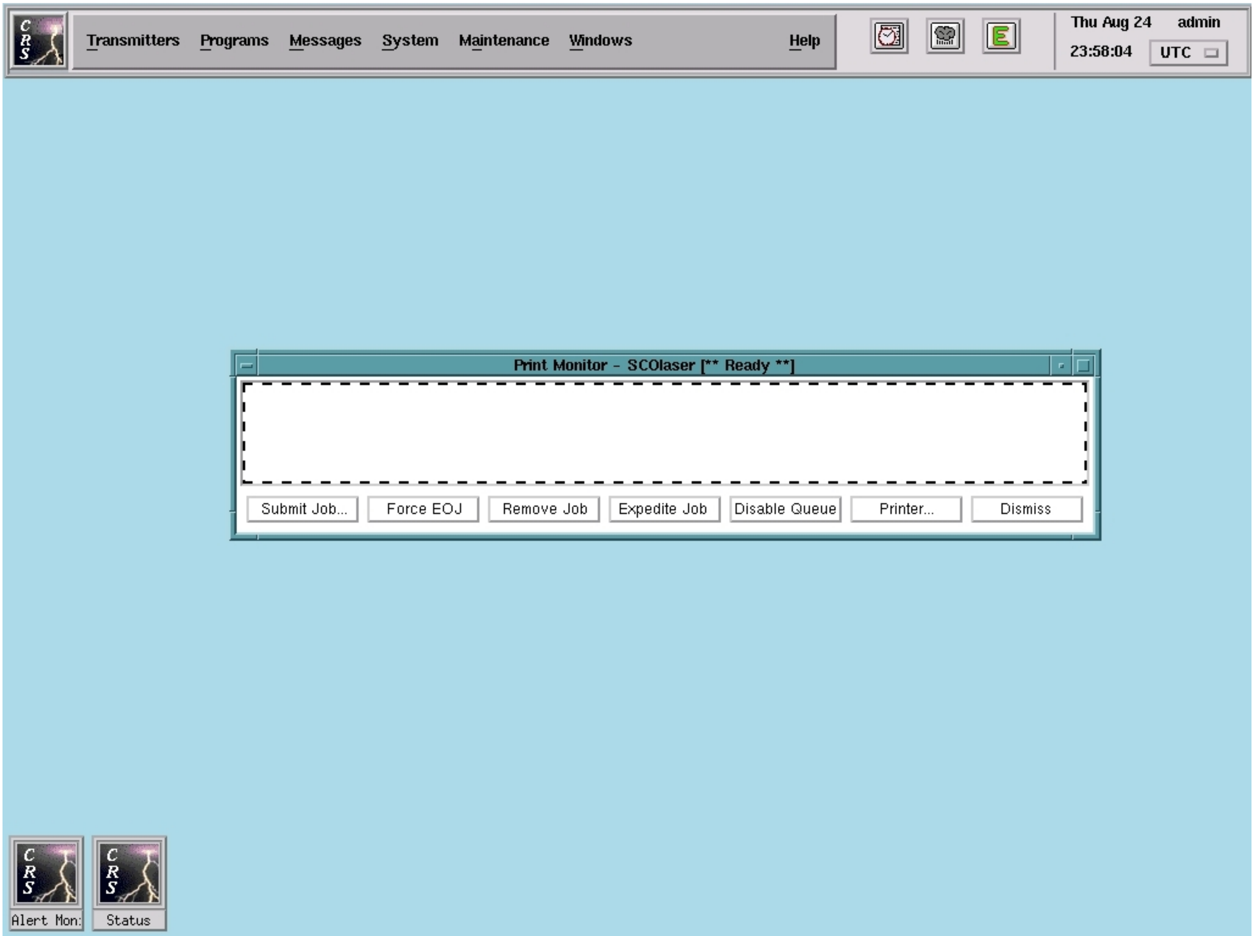
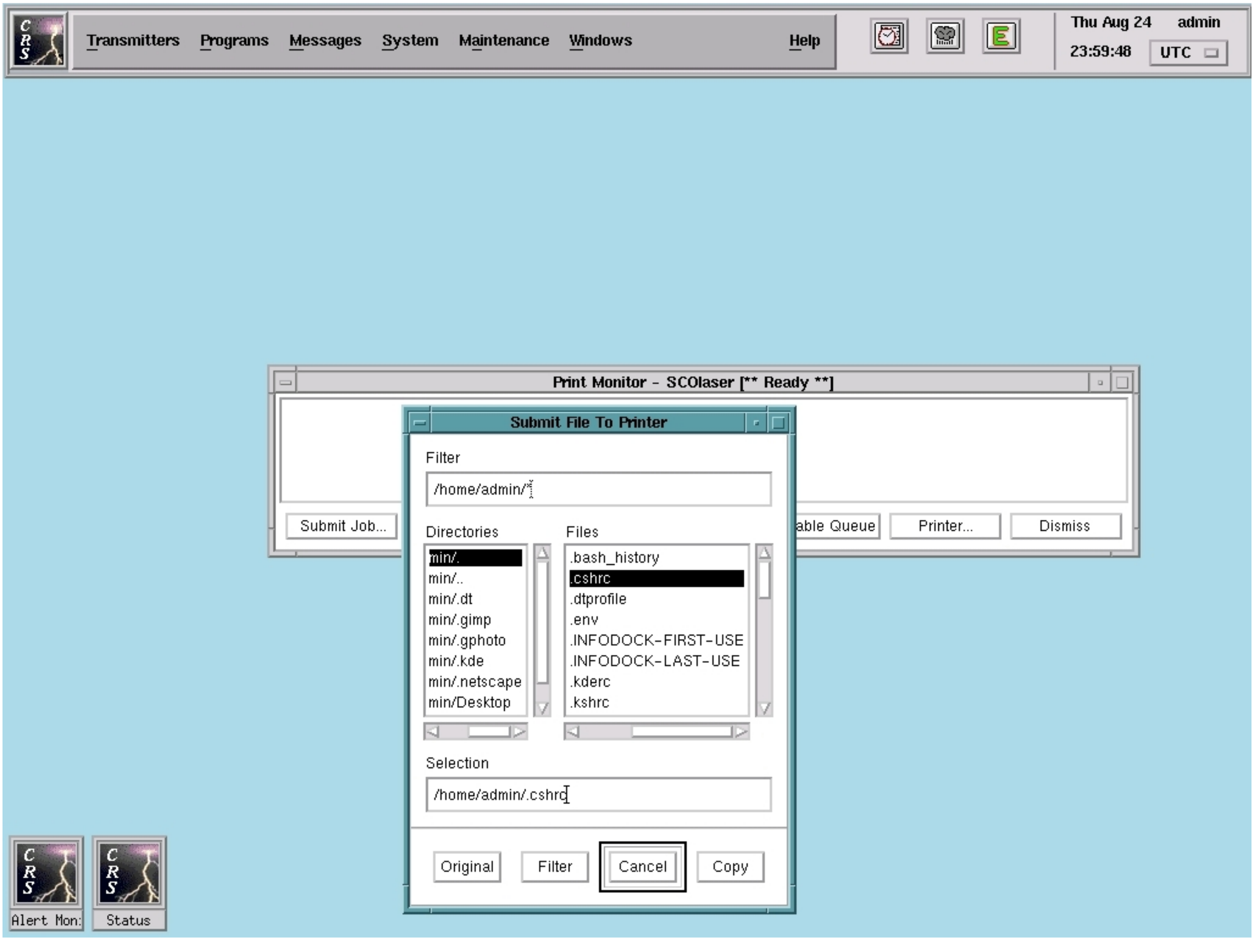

Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Aug 24
admin
23:58:04
UTC
Print Monitor - SCOlaser [** Ready **]
Submit Job...
Force EOJ
Remove Job
Expedite Job
Disable Queue
Printer...
Dismiss
Alert Mon:
Status

Figure 155. Print Monitor Window


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Aug 24
admin
23:59:48
UTC
Print Monitor - SCOlaser [** Ready **]
Submit Job...
able Queue
Printer...
Dismiss
Submit File To Printer
Directories
min/.
min/..
min/.dt
min/.gimp
min/.gphoto
min/.kde
min/.netscape
min/Desktop
Files
.bash_history
.cshrc
.dtprofile
.env
.INFODOCK-FIRST-USE
.INFODOCK-LAST-USE
.kderc
.kshrc
Original
Filter
Cancel
Copy
Alert Mon:
Status

Filter: /home/admin/*

Selection: /home/admin/.cshrc

Figure 156. Submit File to Printer Window

windows. Further, if you print a job via the *Print* button and then should happen to invoke (or already have open) the ***Print Monitor*** window, this job will appear in the print queue (of this window) along with any others previously and subsequently submitted (provided, of course, that they haven't already finished printing).

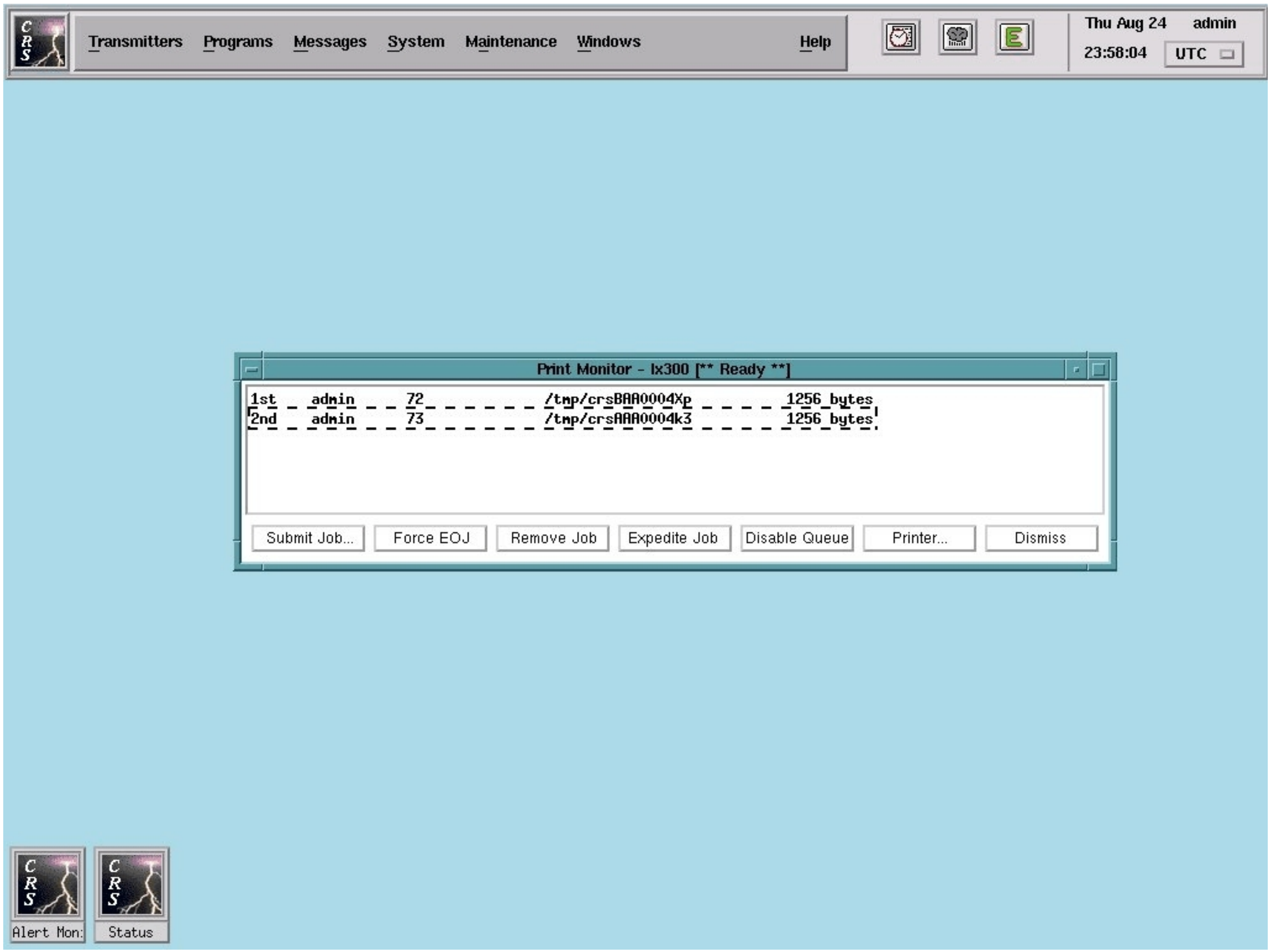
- *Force EOJ* - allows you to remove a print job from the top of the print queue (current) and proceed to print the next job in line, provided the printer is currently enabled and the print job has a status of **[Data Tx Complete]** and has finished printing. (This status indicates that the computer has finished uploading the print file to the selected printer and is waiting for the printer to finish printing the last buffer-full of data.) To do this, merely confirm that **[Data Tx Complete]** is displayed to the right of the current job (as shown in Figure 157) and that the job has finished printing, and then click the *Force EOJ* button. The current print job (top of the queue) will be removed, and the next job will be submitted to the printer.[23]

  Please **note** that the *Force EOJ* button really only allows you to bypass the remaining amount of time (or "timeout") between a completed print job and the next print job. (This is why you are required to confirm that **[Data Tx Complete]** is displayed to the right of the current job and that the job has finished printing.) Consequently, you must not select the button before the current job has finished printing or the next job may be corrupted. Also **note** that the *Force EOJ* button is applicable to the Epson LX-300 printer only, and thus it will have no effective function for any other printers.

- *Remove Job* - allows you to cancel printing of the selected job. To do this, merely highlight the desired print job and then click the *Remove Job* button. The print job will then be removed from the print queue. If you select a print job that is currently printing and not all of the associated data has been sent to the printer, data transfer (to the printer) will cease and a cancellation banner will be printed after the printer drains (by printing) its onboard buffer.[23]

---

[23] *Only the owner of a job or "root" is allowed to use the Force EOJ and Remove Job buttons to force the end of the job and to remove the job, respectively.*


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Thu Aug 24
admin
23:58:04
UTC
Print Monitor - lx300 [** Ready **]
Submit Job...
Force EOJ
Remove Job
Expedite Job
Disable Queue
Printer...
Dismiss
Alert Mon:
Status

```
1st    admin     72              /tmp/crsBAA0004Xp          1256 bytes
2nd    admin     73              /tmp/crsAAA0004k3          1256 bytes
```

Figure 157. Jobs Queued to the Print Queue

- *Expedite Job* - allows you to promote (or move) a print job to the top of the print queue. To do this, merely select the desired print job and click the *Expedite Job* button. If another print job is currently printing, it will be allowed to finish and then the next (or expedited) job will begin printing.[24]

- *Disable Queue* - allows you to enable or disable the print queue, depending on the current printer's queue status. (The button will display the opposite of the current printer's queue status and, when pressed, will execute the function currently displayed on the button.) To do this, merely click the *Disable* (or *Enable*) *Queue* button. The print queue will either be enabled or disabled and the print status will change from **[**Ready**]** to **[!!Down!!]** or vice versa (again, depending on the printer's queue status prior to button selection).

  Please **note** that if there is a problem printing and the printer's queue status changes to **[!!Down!!]** to reflect this, the button will change accordingly to stay in sync with the printer's status. Also **note** that cycling this button will usually reset a printer whose status is **[!!Down!!]** but in all other respects appears ready to print.

- *Printer...* - allows you to access and select (or change to) another currently configured printer. To do this, merely click the *Printer...* button. The ***Select Printer*** window will then be presented (see Figure 158), enabling you to select the desired printer. Once selected, the printer name will be displayed to the right of the window title in the ***Print Monitor*** window.

- *Dismiss* - allows you to exit the ***Print Monitor*** window. To do this, merely click the *Dismiss* button, whereupon the ***Print Monitor*** window will be closed.

---

[24] *Only "root" is allowed to use the Expedite Job button to expedite a job in the print queue.*

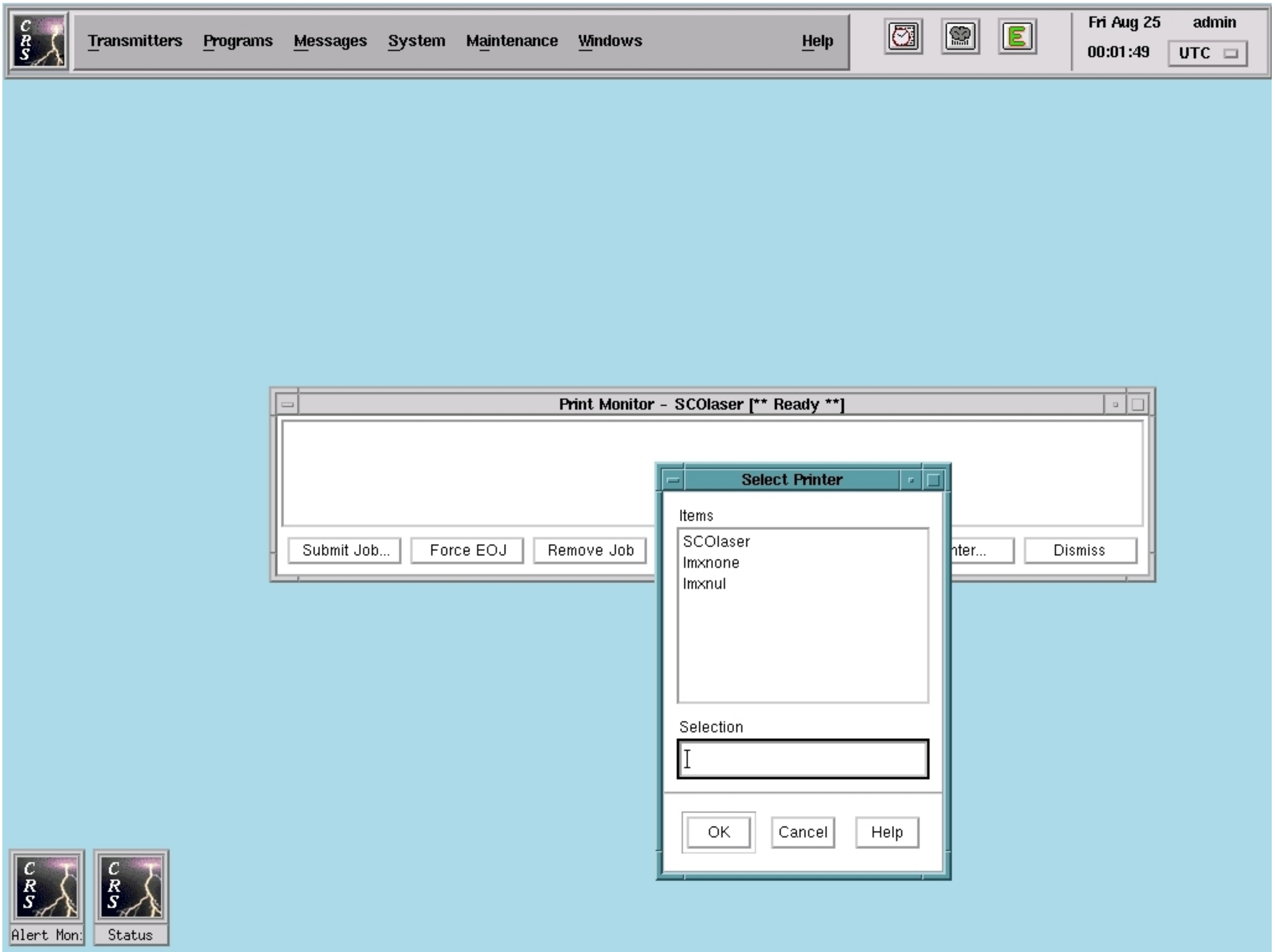

Transitters
Programs
Messages
System
Maintenance
Windows
Help
Fri Aug 25
admin
00:01:49
UTC
Print Monitor - SCOlaser [** Ready **]
Submit Job...
Force EOJ
Remove Job
nter...
Dismiss
Select Printer
Items
SCOlaser
lmxnone
lmxnul
Selection
OK
Cancel
Help
Alert Mon:
Status

Figure 158. Select Printer Window

4. ERROR, WARNING, AND EXCEPTION CONDITION MESSAGES

There are various error, warning, and exception condition messages associated with CRS that may be generated during system operation. These messages may appear at the CRS Operator Terminal or the System Maintenance Console, and are classified into one of the following two message types based on their source:

a. CRS Application Software Error Messages. These messages, which are related to execution of the CRS application software, are generated in response to:

   1. UNIX Errors Detected by CRS Software
   2. Secure Network Queue Manager (SNQM) Errors
   3. Database Application Programming Interface (API) Errors
   4. Operation Errors

b. Non-CRS System Error Messages. These messages, which are related to execution of either the UNIX operating system or the CRS system hardware, include:

   1. UNIX Error Messages (NOTICE/WARNING/PANIC)

Each of the above-mentioned error message types is discussed below in paragraphs 4.1 and 4.2.

4.1. CRS Application Software Error Messages

Each computer software component (CSC) of CRS is responsible for error detection and reporting relative to the processing function that it performs and to the data it processes. Errors can be detected by the underlying UNIX operating system when system calls are made. Errors can be detected by one CRS CSC when processing data passed to it by another CRS CSC. Finally, errors can be detected in data entered by CRS users.

Errors that are returned to CRS CSCs by other CRS CSCs or by the UNIX operating system are typically logged in CRS error logs. These error logs are located in directory **/crs/logs.**

This section discusses UNIX errors detected by the CRS software and then discusses SNQM errors, Database API errors, and operation errors.

4.1.1. UNIX Errors Detected by CRS Software

A system call that is unsuccessful returns an impossible value to the calling process. If and when this happens, an external variable called "errno" is set to a UNIX error code number. Should an error of this type occur, it may, depending on its criticality, be queued to the ***Alert Monitor*** window in the form of an error notification (specifically, "A UNIX failure has occurred."). In the event this type of error occurs and is subsequently queued to the ***Alert Monitor*** window, you should notify the CRS system administrator, since these errors are beyond the realm of the CRS site operator.

4.1.2. SNQM Errors

SNQM errors are related to and hence caused by failures with CRS data transfer operations (which is the function of the Secure Network Queue Manager, SNQM). These errors are detected by SNQM and then queued to the ***Alert Monitor*** window in the form of an error notification (specifically, "A SNQM failure has occurred."). In the event this type of error occurs and is subsequently queued to the ***Alert Monitor*** window, you may want to refer to the *CRS Programmer's Manual* for an explanation or further clarification of the error but you should then notify the CRS system administrator, since these errors are beyond the realm of the CRS site operator.

4.1.3. Database API Errors

Database API errors are related to and hence caused by failures with CRS database storage/retrieval operations. These errors are detected when system calls are made to the Database API and are then queued to the ***Alert Monitor*** window in the form of an error notification (specifically, "A database API failure has occurred."). In the event this type of error occurs and is subsequently queued to the ***Alert Monitor*** window, you may want to refer to the *CRS Programmer's Manual* for an explanation or further clarification of the error but you should then notify the CRS system administrator, since these errors are beyond the realm of the CRS site operator.

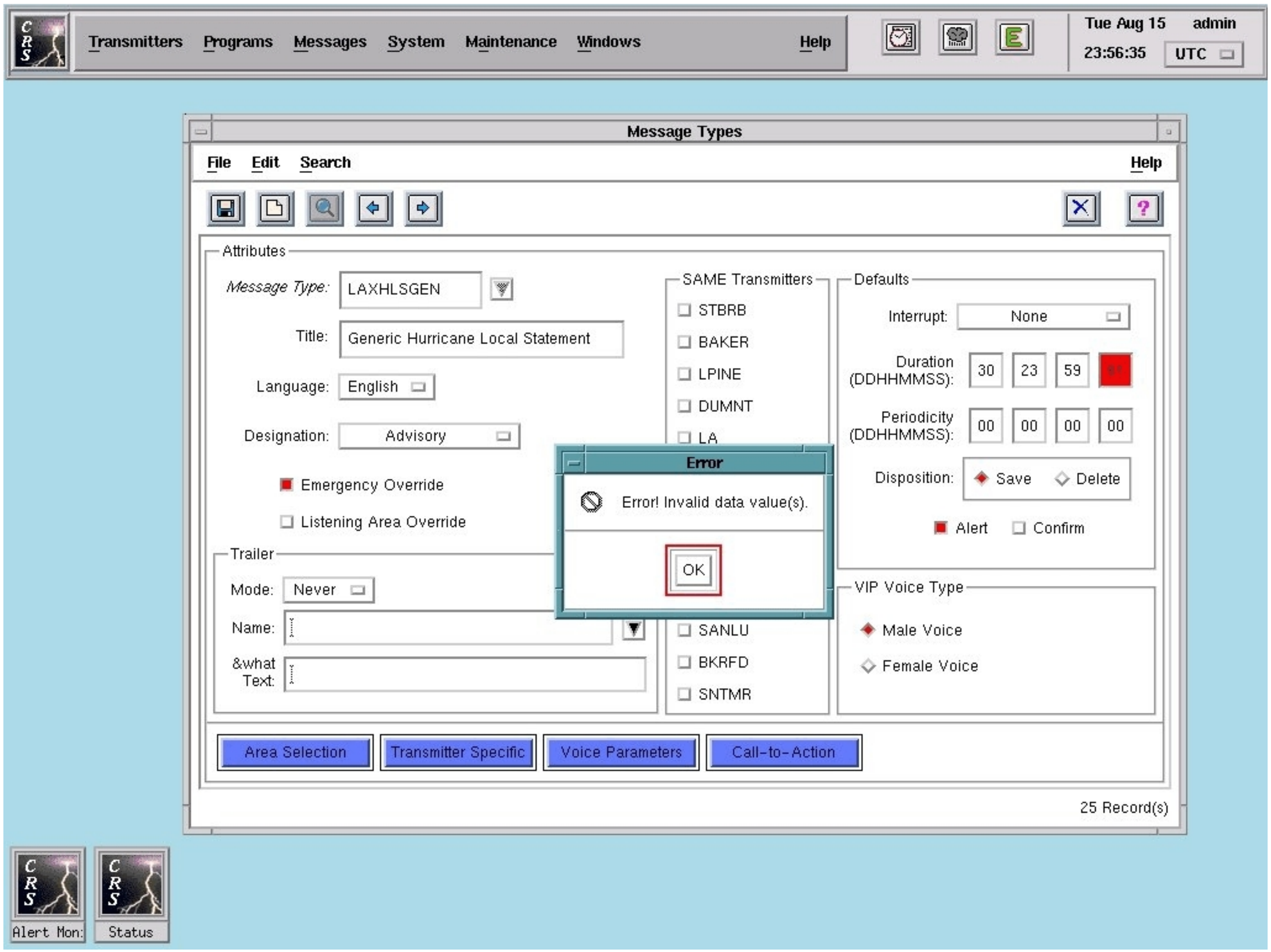
4.1.4. Operation Errors

Operation errors are errors that can occur during CRS operations and consist of user input errors and system errors.

User input errors, as the error type implies, are caused by or are a direct result of operator input errors. These errors are immediately detected and reported to you either at the time you enter the value or later on when you attempt to apply or save your data. For example, if a data field allows 10 ASCII characters and you attempted to enter 11, the system would beep (rather than allowing you to enter the 11th character). As another example, if you entered "60" in a field whose range is 0 to 59 seconds, this error would go undetected until you applied or saved your data, at which point the error would be communicated to you in the form of an error notification (or "pop-up") window (see Figure 152). In addition, the data field containing the error would be shaded red in color to alert you to the error.

User input errors displayed in the form of pop-up notification windows are listed in Table 2 along with a method for corrective action. The first part of the table contains some "general" errors that are common across (and hence may occur when using) more than one menu function. The remaining errors are presented by menu function. Most of these error messages are fairly straightforward; thus, you probably will be able to quickly ascertain from the error message text both the nature of and the method by which you can correct the error. However, some of the messages are more serious in nature (e.g., "Error initializing; cannot continue.") and should be referred to the CRS system administrator. Other messages are displayed exclusively for the CRS system administrator and/or maintenance technician by virtue of the fact that certain functionalities (e.g., Data Verify, Front-End Processor Switch, etc.) are restricted to those particular levels of users. These messages are denoted via an asterisk ("*") to alert you to this fact and also to let you know that the associated corrective actions are meant for and to be executed by the CRS system administrator and/or maintenance technician.

System errors, on the other hand, consist of UNIX errors, hardware errors, and processing errors and are queued to the ***Alert Monitor*** window and/or displayed via a pop-up notification window (the same window as shown in Figure 159). These errors are listed in Table 3, and in the event one of them occurs and is subsequently displayed, you should refer to Table 3 for the appropriate corrective action. You will observe that an "actual" corrective action is provided only if the error is deemed to be within the realm of the CRS site operator. In these instances, you should perform the suggested action, and if, for some reason, the problem still persists, then refer it to your CRS system administrator. For those errors outside the realm of the CRS site operator, you will be instructed (as the corrective action) to notify the CRS system administrator. Upon notification, the CRS system administrator will use his/her knowledge of the UNIX Operating System and the CRS Application Software to diagnose the nature of and, if possible, a method for reconciling the error. For those errors more complex in nature and/or pertaining to the CRS Application Software, the CRS system administrator may have to contact NOAA software maintenance personnel to apprise them of the error and to obtain their technical assistance.


Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:56:35
UTC
Message Types
File
Edit
Search
Help
Attributes
SAME Transmitters
Defaults
Trailer
VIP Voice Type
Error
OK
Area Selection
Transmitter Specific
Voice Parameters
Call-to-Action
Alert Mon:
Status

Error! Invalid data value(s).

Message Type: LAXHLSGEN

Title: Generic Hurricane Local Statement

Language: English

Designation: Advisory

☒ Emergency Override

☐ Listening Area Override

Mode: Never

Name:

&what Text:

☐ STBRB
☐ BAKER
☐ LPINE
☐ DUMNT
☐ LA
☐ SANLU
☐ BKRFD
☐ SNTMR

Interrupt: None

Duration (DDHHMMSS): 30 23 59 🟥

Periodicity (DDHHMMSS): 00 00 00 00

Disposition: ● Save ○ Delete

☒ Alert ☐ Confirm

● Male Voice
○ Female Voice

25 Record(s)

Figure 159. Pop-up Error Window

Table 2. User Input Error Messages

Error Message	**Description & Corrective Action**
General	
System error has occurred.	This indicates that a system error has occurred and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Queue Manager error has occurred.	This indicates that a Secure Network Queue Manager error has occurred and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Database Interface error has occurred.	This indicates that a Database Interface error has occurred and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Unknown error has occurred.	This indicates that an unknown error has occurred, i.e., other than UNIX, QM, Application Programming Interface (API), or Operator related, and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Error initializing; cannot continue.	This indicates that an initialization error occurred during system startup and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Sorry, the CRS database cannot be locked at this time.	This indicates that the desired record is already in use by another operator. ***Try again later.***
Can't save. Error(s) exist; correct and try again.	This indicates that the updated record cannot be saved in that it contains errors. ***Review record fields or parameters for errors, correct observed error(s), and then repeat save operation.***
Error: Cannot Lock Current Record!	This indicates that you have attempted to access/retrieve a record already in use by another operator. ***Try again later.***
Cannot lock record for delete. Try again later.	This indicates that you have attempted to delete a record already in use by another operator. ***Try again later.***

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
An error exists in the search key entered. Correct and try again.	This indicates errors in the search keys specified for your record retrieval operation. ***Review search key fields for errors, correct observed error(s), and then repeat the record retrieval operation.***
Due to a 15 minute time limit the database lock has released.	This indicates that you have exceeded the 15 minute database lock for the retrieved record and therefore any changes made to the record cannot be saved. ***Retrieve the record a second time, make the desired change(s) again, and then save the record.***
Error: Cannot logon to SNQM.	This indicates a problem with the Secure Network Queue Manager and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Error: Must select transmitter!	This indicates that you have failed to select a transmitter prior to specifying or changing associated parameters or data. ***Click on the desired transmitter.***
Error: Cannot read parameters for selected transmitter.	This indicates that the parameter data associated with the selected transmitter is corrupt and therefore is not available for display or update. ***Contact the CRS System Administrator for technical assistance.***
Error: Invalid data value(s).	This indicates that you have input data that is outside the specified range for the field. ***Reenter the data, making sure it is within the field's range.***
System is not operational. Cannot start selected function at this time.	This indicates that the system is not up yet. ***Wait until CRS is fully up and then retry.***
Transmitter Configure	
Error: Cannot find parameters for selected transmitter.*	This indicates that there are no parameters associated with or specified for the selected transmitter and is evidence of a serious (or "potentially" serious) system problem. ***Edit and then reinstall the ASCII configuration file.****
Must select transmitter first.	This indicates that you have attempted to perform a function without first selecting a transmitter. ***Select a transmitter and then retry.***

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
Could not save transmitter configuration data.*	This indicates that the transmitter configuration data could not be saved as requested. ***Make sure that CRS is fully operational and that the binary configuration file (i.e., CRS_sys_cfg) has not been deleted. Then, repeat the save operation.****
Listening Areas	
The Area Code field must contain the six position Listening Area Code.	This indicates that you have attempted to save a Listening Area record without furnishing the six position Listening Area Code. ***Enter the Area Code and then repeat the save operation.***
A unique Location name must be provided.	This indicates that you have specified a Location name that is in duplication of a Location name used in or associated with another database record. ***Reenter the Location name, making sure it is unique.***
The first two characters of the Area Code field must be a valid state postal abbreviation.	This indicates that you have provided invalid characters for the first two characters of your specified Area Code. ***Reenter the first two characters, making sure they are consistent with valid state postal abbreviations.***
The third character within the Area Code field must be a 'C' or a digit 0-9.	This indicates that you have provided an invalid character for the third character of your specified Area Code. ***Reenter the third character, making sure it is either a 'C' (for county code) or a digit 0-9 (for partial area code).***
The last three characters of the Area Code field must be digits representing a FIPS county code.	This indicates that you have provided invalid characters for the last three characters of your specified Area Code. ***Reenter the last three characters, making sure they are consistent with valid FIPS county codes.***
Listening Zones	
The Zone Code field must contain the six position Zone Descriptor.	This indicates that you have attempted to save a Listening Zone record without furnishing the six position Zone Code. ***Enter the Zone Code and then repeat the save operation.***

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
A unique Zone name must be provided.	This indicates that you have specified a Zone name that is in duplication of a Zone name used in or associated with another database record. ***Reenter the Zone name, making sure it is unique.***
The first two characters of the Zone Code field must be a valid state postal abbreviation.	This indicates that you have provided invalid characters for the first two characters of your specified Zone Code. ***Reenter the first two characters, making sure they are consistent with valid state postal abbreviations.***
The third position of the Zone Code must be a 'Z'.	This indicates that you have provided an invalid character for the third character of your specified Zone Code. ***Reenter the third character, making sure it is a 'Z' (for zone).***
The last three characters of the Zone Code field must be digits representing a zone number.	This indicates that you have provided invalid characters for the last three characters of your specified Zone Code. ***Reenter the last three characters, making sure they are consistent with valid zone numbers.***
Broadcast Cycle	
Error: Cannot attach to channel.	This indicates that you have clicked on a transmitter that is currently disabled. ***Contact the CRS System Administrator for technical assistance.***
Due to a System Error the requested Broadcast Cycle Report CANNOT be printed.	This indicates a system error serious enough to prevent you from printing the requested Broadcast Cycle Report. ***Contact the CRS System Administrator for technical assistance.***
The Paste operation must occur on a different transmitter than where it was copied from.	This indicates that you have attempted to paste to the same transmitter from which you copied. ***Click on a different transmitter and then repeat the paste operation.***
An error has occurred during the program update request.	This indicates that a system error occurred which interfered with or prevented your program update request. ***Contact the CRS System Administrator for technical assistance.***
ROAMS Data Modify/Query	

Table 2. User Input Error Messages (continued)

Error Message	**Description & Corrective Action**
Must query for new ROAMS MU data set.	This indicates that you have attempted to view data that has yet to be saved to the database. ***Query ROAMS via the Query ROAMS MU button.***
Error: Must have existing dataset.*	This indicates that you have attempted to save data without first retrieving the existing dataset. ***Click the View/Saved Data Set button to retrieve the existing dataset.****
Error: Alarm *X* Wait Time range must be 0-120.*	This indicates that you have input data outside the specified range for the field. ***Reenter the data, making sure it is within the field's range.****
Error: Alarm *X* Trip Limit range must be 0-178.*	This indicates that you have input data outside the specified range for the field. ***Reenter the data, making sure it is within the field's range.****
Error: Phone Count value range is 1-4.*	This indicates that you have input data outside the specified range for the field. ***Reenter the data, making sure it is within the field's range.****
Error: Voice Password *X* value range is 1-9.*	This indicates that you have input data outside the specified range for the field. ***Reenter the data, making sure it is within the field's range.****
Error: Day value range is 1-366.*	This indicates that you have input data outside the specified range for the field. ***Reenter the data, making sure it is within the field's range.****
Error: Hour value range is 1-24.*	This indicates that you have input data outside the specified range for the field. ***Reenter the data, making sure it is within the field's range.****
Error: Minute value range is 1-59.*	This indicates that you have input data outside the specified range for the field. ***Reenter the data, making sure it is within the field's range.****
Broadcast Program	
A Broadcast Program must have at least one Suite in the General Category before saving.	This indicates that you have attempted to save a broadcast program that doesn't have at least one Suite assigned to it. ***Assign a Suite to the Broadcast Program and then repeat the save operation.***

Table 2. User Input Error Messages (continued)

Error Message	**Description & Corrective Action**
The selected suite(s) are already present in the current Broadcast Program.	This indicates that you have attempted to add suites to a broadcast program that are already assigned to the program. ***If you inadvertently chose the wrong suite, then select and assign the correct suite as desired. Otherwise, reevaluate what it is you're trying to do.***
The selected Message Group contains Message Types that are already Triggers within the current Broadcast Program.	This indicates that you have attempted to activate the triggering of a message group that contains message types that are already triggers within the current broadcast program. ***Locate the other (or "duplicate") message types within the broadcast program and then deactivate (or disable) their respective triggers.***
The selected Message Type is already a Trigger within the current Broadcast Program.	This indicates that you have attempted to activate the triggering of a message type that is already a trigger message within the current broadcast program. ***Locate the other (or "duplicate") message type within the broadcast program and then deactivate (or disable) its trigger.***
Timing errors exist; please correct.	This indicates errors in your specified Start Date/Time and/or Periodicity values. ***Review the field values and correct any observed errors.***
Program Assignment	
You must select a scheduling transmitter for the selected Playback channel.	This indicates that you have failed to select a transmitter to emulate during playback. ***Click the desired transmitter.***
Timed out waiting for Schedule Request.	This indicates that the Scheduler Process failed to return a response to your scheduling request and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Error: Invalid data values. Select suite and reassign.	This indicates a failure in your current assignment of a suite. ***Highlight the suite and then reassign it.***
Message Types	

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
Cannot find message type record!	This indicates that you have keyed in and then attempted to retrieve a message type that doesn't exist. ***Click the list button to the right of the Message Type field, select the desired message from the resulting list, and then repeat the retrieval operation.***
Error: Cannot add more CTA Lists!	This indicates that you have exceeded the maximum number of "10" CTA lists that can be assigned to the message type. ***Delete a CTA list if possible, i.e., if it's imperative that you assign the particular CTA list to the message type.***
Error: Valid Timeout Range is 1-255.	This indicates that you have failed to specify a valid timeout for your CTA List. ***Specify a timeout for the CTA List in the range 1-255.***
Message Association	
Message Type does not exist.	This indicates that you have keyed in and then attempted to retrieve a message type that doesn't exist. ***Click the list button to the right of the Message Type field, select the desired message from the resulting list, and then repeat the retrieval operation.***
Weather Messages	
Must create contents.	This indicates that you have attempted to save a new weather message without first creating the message's contents. ***Create the contents for the message and then repeat the save operation.***
Cannot find message contents file.	This indicates that the link to the message contents file has become corrupt. ***Contact the CRS System Administrator for technical assistance.***
Invalid message data type!	This indicates that the data type selected is neither voice nor text and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Error: Valid Timeout Range is 1-255.	This indicates that you have failed to specify a valid timeout for your CTA message component. ***Specify a timeout for the CTA message component in the range 1-255.***

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
Error: No CTA Message Entry!	This indicates that you have clicked the *OK* button without first specifying CTA message components. ***Specify the components via the associated window and then click the OK button a second time.***
Cannot buffer selected file.	This indicates that CRS system resources are running low. ***Contact the CRS System Administrator for technical assistance.***
Must delete all Replace/Follow MRDs!	This indicates that you have specified Replace/Follow MRDs but did not specify a valid CRS identifier before clicking the *OK* button. ***Specify a valid CRS identifier and then click the OK button a second time.***
Error: Maximum number of replace MRDs are listed!	This indicates that you have exceeded the maximum number of "20" replace messages that can be assigned to a weather message. ***Delete a replace message if possible, i.e., if it's imperative that you assign the particular replace message to the weather message.***
Error: Maximum number of follow MRDs are listed!	This indicates that you have exceeded the maximum number of "10" follow messages that can be assigned to a weather message. ***Delete a follow message if possible, i.e., if it's imperative that you assign the particular follow message to the weather message.***
Cannot allocate memory for diskette file.	This indicates that CRS system resources are running low. ***Contact the CRS System Administrator for technical assistance.***
Error: Failed vulgar words test! Select another file.	This indicates that your weather message retrieved from diskette contains vulgar or "objectionable" words. ***Edit the file on the diskette or select another file and then repeat the retrieval operation.***
Error: Cannot find new diskette message!	This indicates that you have inserted and attempted to read from an empty diskette. ***Insert a diskette containing a weather message and then repeat the retrieval operation.***
Error: Selected file contains errors! Select another file.	This indicates that your weather message retrieved from diskette contains errors. ***Fix the errors in the file or select another file.***

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
Error: Invalid name! Try another name.	This indicates that you have attempted to save a weather message whose name is in duplication of a name used in or associated with another database record. ***Reenter the weather message name, making sure it's unique, and then repeat the save operation.***
Error: Weather message must have listening areas!	This indicates that you have attempted to save a weather message without first specifying associated listening areas. ***Specify listening areas and then repeat the save operation.***
Error in diskette file selection. Retry selection.	This indicates that you have failed to select (or highlight) a file while attempting to retrieve it from diskette. ***Highlight the desired file and then repeat the retrieval operation.***
Weather Message Correction	
Error: Must retrieve error file!	This indicates that you have attempted to apply changes without first retrieving an error message file. ***Click the Get Error File button, select the desired error message file, fix any erred attribute(s), and then repeat the apply operation.***
Error: Null message file.	This indicates that you have selected an error message file that contains no data. ***Contact the CRS System Administrator for technical assistance.***
Cannot open error message for correction.	This indicates that CRS system resources are running low. ***Contact the CRS System Administrator for technical assistance.***
Cannot open Vulgar Word file!	This indicates that the Vulgar Word file is unavailable or corrupt. ***Contact the CRS System Administrator for technical assistance.***
Cannot read Vulgar Word file!	This indicates that the Vulgar Word file is corrupt. ***Contact the CRS System Administrator for technical assistance.***
Cannot allocate memory for Vulgar Word file!	This indicates that CRS system resources are running low. ***Contact the CRS System Administrator for technical assistance.***
Cannot load vulgar words into table!	This indicates that vulgar word processing cannot be performed due to some technical problem. ***Contact the CRS System Administrator for technical assistance.***

Table 2. User Input Error Messages (continued)

Error Message	**Description & Corrective Action**
Message Components	
Error: Must create contents!	This indicates that you have attempted to save your message component without first creating message component contents. ***Create the contents for the message component and then repeat the save operation.***
Emergency Override	
Cannot create diskette message.	This indicates a problem encountered while reading a message from diskette and may be an indication of low system resources or some other potentially serious error. ***Contact the CRS System Administrator for technical assistance.***
Bad message from diskette.	This indicates that your weather message retrieved from diskette contains errors. ***Fix the errors in the file or select another file and then repeat the retrieval operation.***
Fatal error; cannot switch microphone live.	This indicates that the process that turns on the mike after you've pressed the *Transmit* button has failed to execute properly. ***Contact the CRS System Administrator for technical assistance.***
The Message Name entered is already in use. Please select another and try again.	This indicates that you have specified a message name that is in duplication of a message name used in or associated with another database record. ***Reenter the message name, making sure it is unique.***
Synthetic Speech Override	
Cannot open Message Table!	This indicates that the Message Table cannot be opened and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Cannot open Area Table!	This indicates that the Area Table cannot be opened and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Cannot open Zone Table!	This indicates that the Zone Table cannot be opened and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
Cannot open the Component Table!	This indicates that the Component Table cannot be opened and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Missing CP_AI recovery directory!	This indicates that the CP_AI directory is missing and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Fatal Error: Can't find recovery file for selected type!	This indicates that the recovery file for the selected type cannot be opened and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Can't read .AX file!	This indicates that the .AX ("raw message") file cannot be read. ***Contact the CRS System Administrator for technical assistance.***
Can't extract buffer into ctype42!	This indicates that the .AX ("raw message") file contents cannot be buffered. ***Contact the CRS System Administrator for technical assistance.***
Can't display message text!	This indicates that the retrieved message text cannot be displayed. ***Contact the CRS System Administrator for technical assistance.***
Message is LOCKED! Select another message.	This indicates that you have selected a message already in use by another operator. ***Select another message or try again later.***
Error: Can't start current recording!	This indicates that your request to begin recording failed. ***Contact the CRS System Administrator for technical assistance.***
Error: Can't stop playing current message!	This indicates that your request to stop playing a message has failed. ***Contact the CRS System Administrator for technical assistance.***
Error: Can't stop current recording!	This indicates that your request to stop recording failed. ***Contact the CRS System Administrator for technical assistance.***
Error: Can't play current message!	This indicates that your request to play a message has failed. ***Contact the CRS System Administrator for technical assistance.***

Table 2. User Input Error Messages (continued)

Error Message	**Description & Corrective Action**
Error: Must record contents before scheduling message!	This indicates that you have attempted to schedule (via the *Send Voice* button) an AFOS/AWIPS conversion message without first recording its contents. ***Record the message and then click the Send Voice button a second time.***
File unlock failed!	This indicates that the file unlock request has failed. ***Contact the CRS System Administrator for technical assistance.***
Use Message Correction program to fix file *X*.	This indicates that you have attempted to schedule (via the *Send Voice* or *Send Text* button) an AFOS/AWIPS conversion message that contains an error. ***Correct the error via the Weather Message Correction window and then repeat the message schedule operation.***
Error: SNQM Error *X* in record request.	This indicates that an SNQM error occurred during a record request and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Error: SNQM Error *X* in record receive.	This indicates that an SNQM error occurred during a record receive and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Error: Recording timeout!	This indicates that a timeout occurred during a recording command request. ***Contact the CRS System Administrator for technical assistance.***
Error: SNQM Error *X* in playback send.	This indicates that an SNQM error occurred during a playback send request and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Error: SNQM Error *X* in playback receive.	This indicates that an SNQM error occurred during a playback receive and is evidence of a serious (or "potentially" serious) system problem. ***Contact the CRS System Administrator for technical assistance.***
Playback command timeout!	This indicates that a timeout occurred during a playback command request. ***Contact the CRS System Administrator for technical assistance.***
System Status	

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
System is not operational. Perform 'Start CRS' to start system.	This indicates that the system is not operational and thus cannot display system status information as requested. ***As the message states, start CRS (via the Start System submenu).***
Data Verify	
Verification failed. Press ERROR LOG button to view report.*	This indicates that the requested data validation operation has failed. ***As the message states, press the*** *Error Log* ***button to view the report and then based on the error information contained in the report, execute the appropriate steps to reconcile the problem.****
Cannot find or open the validation report.*	This indicates that you have pressed the *Error Log* button but CRS wasn't able to find or open the file, either because the file is unavailable or is corrupt. ***Ensure the existence and integrity of the error log file.****
Database repair failed.*	This indicates that your request to repair the database has failed. ***Ensure the existence and integrity of all CRS database files.*** *
Start/Stop Shadowing	
Error: Must select activity shadowing state!	This indicates that you have failed to select a shadowing state (i.e., "Start Shadowing" or "Stop Shadowing") prior to executing the operation. ***Select the desired state and then repeat the start/stop shadowing operation.***
Start/Stop Log Printing	

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
Error: Must select activity log printing state!	This indicates that you have failed to select a log printing state (i.e., "Start Log Printing" or "Stop Log Printing") prior to executing the operation. ***Select the desired state and then repeat the operation.***
System Reports	
Error: Cannot read system status!	This indicates that the system status data is unavailable or corrupt. ***Contact the CRS System Administrator for technical assistance.***
Error: Cannot read system configuration.	This indicates that the system configuration data is unavailable or corrupt. ***Contact the CRS System Administrator for technical assistance.***
Error: Cannot get report file buffer.	This indicates that the report file is unavailable or corrupt. ***Contact the CRS System Administrator for technical assistance.***
Error: Printer is in use! Please wait and try gain.	This indicates that the printer is already in use. ***Try again later.***
Error: Cannot create temporary report file for printing.	This indicates that CRS system resources are running low. ***Contact the CRS System Administrator for technical assistance.***
Error: Must select Transmitter!	This indicates that you have selected Transmitters for the report type but failed to specify a transmitter number. ***Specify the desired transmitter in the Transmitter field and then repeat the retrieval operation.***
Error: Must select Program!	This indicates that you have selected Programs for the report type but failed to specify a program name. ***Specify the desired program in the Program field and then repeat the retrieval operation.***
Error: Must select Suite!	This indicates that you have selected Suites for the report type but failed to specify a suite name. ***Specify the desired suite in the Suite field and then repeat the retrieval operation.***
Error: Must select Type!	This indicates that you have selected Message Types for the report type but failed to specify a message type name. ***Specify the desired message type in the Type field and then repeat the retrieval operation.***

Table 2. User Input Error Messages (continued)

Error Message	**Description & Corrective Action**
Error: Must select Group Name!	This indicates that you have selected Message Groups for the report type but failed to specify a message group name. ***Specify the desired message group in the Name field and then repeat the retrieval operation.***
Error: Must select Component Type!	This indicates that you have selected Message Components for the report type but failed to specify a message component type. ***Specify the desired message component in the Type field and then repeat the retrieval operation.***
Error: Must select Language!	This indicates that you have selected Message Components for the report type but failed to specify a language. ***Specify the desired language in the Language field and then repeat the retrieval operation.***
Error: Must select Component Name!	This indicates that you have selected Message Components for the report type but failed to specify a message component name. ***Specify the desired message component in the Name field and then repeat the retrieval operation.***
Error: Must select Weather Message Name!	This indicates that you have selected Weather Messages for the report type but failed to specify a weather message name. ***Specify the desired weather message in the Name field and then repeat the retrieval operation.***
Main Processor Switch	
Desired Master *X* MP is offline.	This indicates that you have attempted to switch the Master to an MP that is currently offline. ***Check the network connection for the suspect MP.***
Desired Shadow *X* MP is offline. Continue switch?	This indicates that you have attempted to enable Shadowing for an MP that is currently offline. ***Check the network connection for the suspect MP.***
Front-End Processor Switch	

Table 2. User Input Error Messages (continued)

Error Message	**Description & Corrective Action**
No configured FEPs.*	This indicates that you have accessed the Front End Processor Switch window but there are no configured FEPs to display. ***Check your CRS FEPs to make sure they are properly installed and configured for your site.****
Error: Must select front end processor!*	This indicates that you have attempted to switch in or out a FEP without first specifying which FEP. ***Specify the desired FEP and then repeat the FEP switch operation.****
Error: Must select switch state!*	This indicates that you have attempted to perform a FEP switch without first specifying the FEP switch state. ***Specify the desired switch state (i.e., "In" or "Out") and then repeat the FEP switch operation.****
Date/Time Update	
Error: Cannot read system configuration!*	This indicates that system configuration data is unavailable or corrupt. ***Ensure the availability and integrity of the CRS configuration data.****
Activity Logs	
Error: Must select log type!	This indicates that you have attempted to retrieve activity log data without first selecting the log type. ***Specify the desired log type (i.e., "Error" or "Transmit") and then repeat the retrieval operation.***
Error: Must select list range!	This indicates that you have attempted to retrieve activity log data without first specifying the List Range type. ***Specify the desired List Range value (i.e., "ALL" or "Date/Time") and then repeat the retrieval operation.***
Cannot read Activity Log file.	This indicates that the activity log file is corrupt. ***Contact the CRS System Administrator for technical assistance.***
Error: Cannot open the Activity Log file!	This indicates that the activity log file is unavailable or corrupt. ***Contact the CRS System Administrator for technical assistance.***

Table 2. User Input Error Messages (continued)

Error Message	**Description & Corrective Action**
Error: To Date/Time must be greater than From Date/Time!	This indicates a problem with your specified date/time parameters. ***Correct your parameters so that the From Date/Time value is less than or equal to the To Date/Time value and then repeat the retrieval operation.***
Log file is too big for display! Try short(er) Date/Time ranges.	This indicates that you have attempted to retrieve log file data that is too big for display. ***Constrain (or "shorten") your date/time parameters and then repeat the retrieval operation.***
Initiate/Terminate Logging	
Error: Must select activity logging state.*	This indicates that you have attempted to execute the initiate/terminate submenu function without first specifying a state. ***Specify the desired state (i.e., "Initiate Activity Logging" or "Terminate Activity Logging") and then repeat the operation.****
Site Configuration	
PROCESSOR DATA IS VIEW ONLY! To change processor data: -Stop the system. -Edit IP addresses from /etc/hosts file (Must reboot machine). -If /etc/hosts file was updated, must re-run crs_site to reinitialize shared memory. -NOTE: Node names are hard-coded. These names cannot be modified! -NOTE: Processor logical function is decided on startup based on physical system configuration.*	This indicates that you have pressed the SAVE hotkey while displaying processor parameters. ***Perform the steps described in the error message.****

Table 2. User Input Error Messages (continued)

Error Message	Description & Corrective Action
Channel type changes only update data configuration values. To effect the changes: -Stop the CRS system. -Restart CRS system. CONTINUE???*	This indicates that you have changed the channel type (for a channel) and then pressed the SAVE hotkey. ***Perform the steps described in the error message.****
Could not save configuration data.*	This indicates that the site configuration data could not be saved as requested. ***Make sure that CRS is fully operational and that the binary configuration file (i.e., CRS_sys_cfg) has not been deleted. Then, repeat the save operation.****
Pronunciation Dictionary	
Could not compile Dictionary.	This indicates a problem with the Dictionary file or the compiling process. ***Contact the CRS System Administrator for technical assistance.***
Word Pronunciation	
Cannot get Playback Channel.	This indicates a problem accessing a playback channel. ***Contact the CRS System Administrator for technical assistance.***
Error: Must have phonetic word to pronounce!	This indicates that you have selected the Phonetic Pronunciation Method and clicked the *Pronounce* button without first specifying a phonetic spelling in the Phonetic field. ***Specify the desired spelling in the Phonetic field and then click the Pronounce button again.***
Must pronounce word before saving.	This indicates that you have attempted to save a word without first pronouncing the word (via the *Pronounce* button). ***Click the Pronounce button to pronounce the word and then repeat the save operation.***
Error: No phoneme returned on pronounce!	This indicates that the responsible software process did not return a phoneme for the word during the pronounce operation. ***Contact the CRS System Administrator for technical assistance.***
Error: Duplicate word. Words are unique regardless of case.	This indicates that you have attempted to save a word that duplicates another. ***Reenter the word and then repeat the save operation.***

Table 2. User Input Error Messages (continued)

Error Message	**Description & Corrective Action**
Error: Must have phoneme word to pronounce.	This indicates that you have selected the Phoneme Pronunciation Method and clicked the *Pronounce* button without first specifying a phoneme in the Phoneme field. ***Enter the phoneme in the Phoneme field and then repeat the pronunciation operation.***
Error: Phoneme must have beginning and ending brackets ('[' and ']').	This indicates that you have entered a phoneme in the Phoneme field without enclosing it in brackets. ***Enter the brackets to enclose the phoneme and then repeat the pronunciation operation.***
Must select pronunciation method.	This indicates that you have clicked the *Pronounce* button without first selecting the pronunciation method. ***Select the pronunciation method and then repeat the pronunciation operation.***
Must select and retrieve current dictionary.	This indicates that you have attempted to compile without first selecting a current dictionary. ***Click the list button to the right of the Dictionary field, select the desired dictionary from the pick-list, and then repeat the compilation operation.***
Error: Must select valid transmitter for downloading.	This indicates that you have attempted to download the recompiled binary file without first selecting a valid transmitter. ***Click the list button to the right of the Download field, select the desired transmitter from the associated pick-list, and then repeat the download operation.***
Error Message Format	
Error: Must select error message!*	This indicates that you have attempted to execute the Error Message Format submenu function without first specifying an error message. ***Select the desired error message and then repeat the operation.****
Error: Must have a priority value!*	This indicates that you have attempted to execute the Error Message Format submenu function without first specifying a priority value for the selected error message. ***Select the desired priority value and then repeat the operation.****

Table 2. User Input Error Messages (continued)

Error Message	**Description & Corrective Action**
Database Backup/Restore	
Invalid directory name. Re-enter directory name.*	This indicates that you have failed to provide a valid directory name for a Backup to Disk operation. ***Enter a valid directory name in the Directory Name field and then retry.****
No directory selected.*	This indicates that you have failed to select a directory for a Restore from Disk operation. ***Click the Restore Directories button, select the desired backup from the Restore Directories window, and then click the Start Restore button.****
Restore function is ONLY allowed when system is down.*	This indicates that you have attempted a restore operation without first stoping CRS. ***Stop CRS (via the Stop System submenu) and then repeat the restore operation.***

Table 3. System Error Messages

Error Message	**Corrective Action**
A UNIX failure has occurred.	***Contact the CRS System Administrator for Technical Assistance.***
A SNQM failure has occurred.	***Contact the CRS System Administrator for Technical Assistance.***
A Database API failure has occurred.	***Contact the CRS System Administrator for Technical Assistance.***
An Invalid filename was encountered.	***Contact the CRS System Administrator for Technical Assistance.***
A Corrupt message was received by this CSC.	***Contact the CRS System Administrator for Technical Assistance.***
An Invalid message was received by this CSC.	***Contact the CRS System Administrator for Technical Assistance.***
A Child Process Terminated.	***Contact the CRS System Administrator for Technical Assistance.***
Transmitter Silence Alarm Detected.	***Contact the CRS System Administrator for Technical Assistance.***
Transmitter Failure - Audio Output.	***Contact the CRS System Administrator for Technical Assistance.***
Transmitter Failure - Playback Message Scheduler.	***Contact the CRS System Administrator for Technical Assistance.***
Transmitter Failure - Playback Suite Scheduler.	***Contact the CRS System Administrator for Technical Assistance.***
Shadow Synchronization Lost - Out of Sequence.	***Contact the CRS System Administrator for Technical Assistance.***
File Transfer Error.	***Contact the CRS System Administrator for Technical Assistance.***
No Response to Request.	***Contact the CRS System Administrator for Technical Assistance.***
Corrupted/Invalid System Configuration.	***Contact the CRS System Administrator for Technical Assistance.***
Corrupted/Invalid System Status.	***Contact the CRS System Administrator for Technical Assistance.***
Can't get or read System Configuration.	***Contact the CRS System Administrator for Technical Assistance.***
Can't get or read System Status.	***Contact the CRS System Administrator for Technical Assistance.***
Can't get or read Log Configuration.	***Contact the CRS System Administrator for Technical Assistance.***
Attempt to set system time failed.	***Contact the CRS System Administrator for Technical Assistance.***

Table 3. System Error Messages (continued)

Error Message	**Corrective Action**
Invalid operator request.	***Contact the CRS System Administrator for Technical Assistance.***
File name length exceeds maximum.	***Contact the CRS System Administrator for Technical Assistance.***
No response to request timeout.	***Contact the CRS System Administrator for Technical Assistance.***
Cannot read System Configuration.	***Contact the CRS System Administrator for Technical Assistance.***
Cannot read System Status.	***Contact the CRS System Administrator for Technical Assistance.***
Cannot read System Log Configuration.	***Contact the CRS System Administrator for Technical Assistance.***
Input message size exceeds its maximum.	***Edit message to correct invalid entry.***
Invalid message: format identifier.	***Edit message to correct invalid entry.***
Unknown product identifier.	***Edit message to correct invalid entry.***
Invalid message: create time.	***Edit message to correct invalid entry.***
Invalid message: effective time.	***Edit message to correct invalid entry.***
Invalid message: periodicity.	***Edit message to correct invalid entry.***
Invalid message: active flag.	***Edit message to correct invalid entry.***
Invalid message: delete flag.	***Edit message to correct invalid entry.***
Invalid message: confirmation.	***Edit message to correct invalid entry.***
Invalid message: interrupt flag.	***Edit message to correct invalid entry.***
Invalid message: alert tone.	***Edit message to correct invalid entry.***
Invalid message: expiration time.	***Edit message to correct invalid entry.***
Invalid message: call-to-action timeout.	***Edit message to correct invalid entry.***
Invalid message: replace id in MRD list.	***Edit message to correct invalid entry.***
Invalid message: follow id in MRD list.	***Edit message to correct invalid entry.***
Invalid message: LAC code.	***Edit message to correct invalid entry.***
Invalid message: missing replace id in MRD list.	***Edit message to correct invalid entry.***
Invalid message: missing follow id in MRD list.	***Edit message to correct invalid entry.***
Invalid message: missing LAC code.	***Edit message to correct invalid entry.***
Invalid message: missing MRD flag F/R.	***Edit message to correct invalid entry.***

Table 3. System Error Messages (continued)

Error Message	**Corrective Action**
Invalid message: extraneous call-to-action.	***Edit message to correct invalid entry.***
Invalid message: LAC codes exceed maximum.	***Edit message to correct invalid entry.***
Invalid message: replace ids in MRD list exceed max.	***Modify number of replace ids in MRD list.***
Invalid message: follow ids in MRD list exceed max.	***Modify number of follow ids in MRD list.***
Invalid message: a vulgar word is detected.	***Modify message by removing vulgar word.***
Invalid message: missing SOM indicator $a.	***Modify message by adding missing $a.***
Invalid message: missing EOM indicator $b.	***Modify message by adding missing $b.***
Invalid message: missing current message id in MRD list.	***Modify message by adding missing id.***
Invalid message: invalid number of bytes received.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid message: received from ROAMS.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid message: bad ROAMS site number.	***Modify message by correcting ROAMS site number; retry.***
ROAMS call in -- ROAMS ALARM.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid message: invalid ROAMS handshake.	***Contact the CRS System Administrator for Technical Assistance.***
ROAMS processing timeout.	***Contact the CRS System Administrator for Technical Assistance.***
CP_RI initialization timeout failure.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid message: ROAMS NWRSAME header error.	***Contact the CRS System Administrator for Technical Assistance.***
ROAMS modem/phone line is currently in use - BUSY.	***Retry dial-up.***
Invalid recording request.	***Contact the CRS System Administrator for Technical Assistance.***
ROAMS connection failed.	***Check connection; retry.***
The ACP reported a fault.	***Contact the CRS System Administrator for Technical Assistance.***

Table 3. System Error Messages (continued)

Error Message	**Corrective Action**
The ACP serial cable is disconnected - check cable.	***Check cable; retry.***
The ACP sent an invalid response message.	***Contact the CRS System Administrator for Technical Assistance.***
The ACP has failed all retry attempts.	***Contact the CRS System Administrator for Technical Assistance.***
The ACP is currently busy.	***Wait; retry.***
The ACP is in BACKUP LIVE mode.	***Switch ACP to online mode.***
ADC connection failed.	***Contact the CRS System Administrator for Technical Assistance.***
ACP connection failed - No heartbeat.	***Contact the CRS System Administrator for Technical Assistance.***
Failed to open ACP serial port.	***Contact the CRS System Administrator for Technical Assistance.***
ACP serial port read error.	***Contact the CRS System Administrator for Technical Assistance.***
ACP serial port write error.	***Contact the CRS System Administrator for Technical Assistance.***
Failed to get date/time from AWIPS.	***Contact the CRS System Administrator for Technical Assistance.***
AFOS connection failed.	***Contact the CRS System Administrator for Technical Assistance.***
AWIPS connection failed.	***Contact the CRS System Administrator for Technical Assistance.***
Database Table Access Failure.	***Contact the CRS System Administrator for Technical Assistance.***
Unable to create a component file.	***Contact the CRS System Administrator for Technical Assistance.***
Message is not found in the database.	***Contact the CRS System Administrator for Technical Assistance.***
Message deletion from database incomplete.	***Contact the CRS System Administrator for Technical Assistance.***
Must broadcast Watch/Warning Msg before deletion.	***Must allow current message to be broadcast before deleting.***
Must broadcast Watch/Warning Msg before replacement.	***Must allow current message to be broadcast before replacing.***
Deletion is in progress.	***Valid deletion response could not return in time. Retry weather message deletion.***

Table 3. System Error Messages (continued)

Error Message	**Corrective Action**
Msg type undef'd for scheduling any tx.	***Verify whether message type is in the current transmitter suite schedule. If not, add type and then reassign current suite.***
Msg type undef'd for scheduling a tx.	***Verify whether message type is in the current transmitter suite schedule. If not, add type and then reassign current suite.***
Cannot find report record for requested report name.	***Contact the CRS System Administrator for Technical Assistance.***
Cannot find report record for requested report type.	***Contact the CRS System Administrator for Technical Assistance.***
Unable to find requested transmitter data in system config.	***Contact the CRS System Administrator for Technical Assistance.***
Deny to verify this FEP.	***Contact the CRS System Administrator for Technical Assistance.***
Database Startup Verification failed. Perform data verify to view the error.	***Contact the CRS System Administrator for Technical Assistance.***
Database Repair Failure.	***This message pertains to the Data Verify submenu, which is available to the CRS System Administrator only. The System Administrator may need to restore the database via the Database Backup/Restore submenu.***
Failed to delete the requested record and its associated links.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid maintenance operation received.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid scheduler operation received.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid transmitter no. for this instance.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid command for this transmitter.	***Contact the CRS System Administrator for Technical Assistance.***
Termination request error.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid transmitter mode received.	***Contact the CRS System Administrator for Technical Assistance.***
In Standby mode.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid originator of received SNQM message.	***Contact the CRS System Administrator for Technical Assistance.***

Table 3. System Error Messages (continued)

Error Message	Corrective Action
Unable to allocate an unused schedule id.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid operation on file.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid schedule file command.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid object type parameters received.	***Contact the CRS System Administrator for Technical Assistance.***
Unsuccessful SNQM function call.	***Contact the CRS System Administrator for Technical Assistance.***
Too many broadcast schedules received.	***Contact the CRS System Administrator for Technical Assistance.***
Unable to compress schedule array.	***Contact the CRS System Administrator for Technical Assistance.***
Unable to start up process.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid transmitter argument.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid processor mode argument.	***Contact the CRS System Administrator for Technical Assistance.***
Unable to forward message.	***Contact the CRS System Administrator for Technical Assistance.***
Unable to initialize process.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid no. of schedule objects received.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid no. of schedule bytes received.	***Contact the CRS System Administrator for Technical Assistance.***
Schedule file exceeds maximum size allowed.	***Contact the CRS System Administrator for Technical Assistance.***
Schedule table update error.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid cmd this transmitter.	***Contact the CRS System Administrator for Technical Assistance.***
Bad exec operation.	***Contact the CRS System Administrator for Technical Assistance.***
Bad datatype tag.	***Contact the CRS System Administrator for Technical Assistance.***
Schedule resource problem.	***Contact the CRS System Administrator for Technical Assistance.***

Table 3. System Error Messages (continued)

Error Message	**Corrective Action**
Schedule file problem.	***Contact the CRS System Administrator for Technical Assistance.***
Schedule list problem.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid message id received over SNQM.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid message type received over SNQM.	***Contact the CRS System Administrator for Technical Assistance.***
The log printer is not functioning properly - check printer.	***Check printer; retry.***
Log file copy to floppy failed.	***Check diskette; retry.***
The SL printer is not ready.	***Place printer online; retry.***
The SL printer is currently in use.	***Wait; retry.***
Cannot open Log file for output.	***Contact the CRS System Administrator for Technical Assistance.***
SL could not size the Log file.	***Contact the CRS System Administrator for Technical Assistance.***
The Log file is too big to copy to floppy.	***Reduce file size.***
SL Background printing has failed.	***Place printer online; retry.***
Can't write to the output Log file.	***Contact the CRS System Administrator for Technical Assistance.***
The Store Control request failed.	***Contact the CRS System Administrator for Technical Assistance.***
Logging was already disabled.	***Contact the CRS System Administrator for Technical Assistance.***
SL's print job failed.	***Contact the CRS System Administrator for Technical Assistance.***
SL's file copy failed.	***Contact the CRS System Administrator for Technical Assistance.***
Updating of the Log Config file failed.	***Contact the CRS System Administrator for Technical Assistance.***
System Log to Database write failed.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid error code received from csc.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid operator request.	***Retry operator request. Check for input errors.***

Table 3. System Error Messages (continued)

Error Message	**Corrective Action**
SL received an unexpected SNQM message.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid Event for this system state.	***Contact the CRS System Administrator for Technical Assistance.***
All FEPs are offline.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid Data received in control message.	***Contact the CRS System Administrator for Technical Assistance.***
No backup is available.	***This message pertains to the Front-End Processor Switch submenu, which is available to the CRS System Administrator only. The System Administrator may need to repair/replace the backup FEP and then reattempt the FEP switch.***
The specified processor is not available (offline).	***This message pertains to the Front-End Processor Switch submenu, which is available to the CRS System Administrator only. The System Administrator may need to repair/replace the backup FEP and then reattempt the FEP switch.***
msgsnd() to the Internal Monitor failed.	***Contact the CRS System Administrator for Technical Assistance.***
Master Processor backup is unavailable.	***Ensure that Master Processor backup is powered up and configured with system.***
FEP Processor backup is unavailable.	***This message pertains to the Front-End Processor Switch submenu, which is available to the CRS System Administrator only. The System Administrator may need to repair/replace the backup FEP and then reattempt the FEP switch.***
Invalid event for this message.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid Command.	***Contact the CRS System Administrator for Technical Assistance.***
Queue Manager Failure.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid Logical Processor Number.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid checksum.	***Contact the CRS System Administrator for Technical Assistance.***

Table 3. System Error Messages (continued)

Error Message	**Corrective Action**
Local file inaccessible.	***Contact the CRS System Administrator for Technical Assistance.***
Remote file inaccessible.	***Contact the CRS System Administrator for Technical Assistance.***
Processor Failure - Handshake was lost.	***Contact the CRS System Administrator for Technical Assistance.***
Invalid Request - Shadowing is off.	***Contact the CRS System Administrator for Technical Assistance.***
Unable to make a copy of current database tables.	***Contact the CRS System Administrator for Technical Assistance.***
FEP processor is down.	***Contact the CRS System Administrator for Technical Assistance.***
FEP switchover failed - ASA not ready.	***This message pertains to the Front-End Processor Switch submenu, which is available to the CRS System Administrator only. The System Administrator may need to wait and then reattempt the FEP switch.***
FEP is not ready for switch-in - try later.	***This message pertains to the Front-End Processor Switch submenu, which is available to the CRS System Administrator only. The System Administrator may need to wait and then reattempt the FEP switch.***
Network copy failed.	***Contact the CRS System Administrator for Technical Assistance.***
File Verify failed.	***Contact the CRS System Administrator for Technical Assistance.***
DECtalk port open failure.	***Contact the CRS System Administrator for Technical Assistance.***
Can't open component file.	***Contact the CRS System Administrator for Technical Assistance.***
Can't read component file.	***Contact the CRS System Administrator for Technical Assistance.***
Can't open FSK file.	***Contact the CRS System Administrator for Technical Assistance.***
Can't read FSK file.	***Contact the CRS System Administrator for Technical Assistance.***
Text buffer overflow.	***Contact the CRS System Administrator for Technical Assistance.***
DECTalk audio output error.	***Contact the CRS System Administrator for Technical Assistance.***

Table 3. System Error Messages (continued)

Error Message	**Corrective Action**
Unable to transmit tone.	***Contact the CRS System Administrator for Technical Assistance.***
Keep alive error.	***Contact the CRS System Administrator for Technical Assistance.***
Can't open Database Table.	***Contact the CRS System Administrator for Technical Assistance.***

4.2. NON-CRS System Error Messages

Non-CRS system errors are errors that may occur independent of the execution of the CRS application software. These errors are attributable to circumstances associated with either the UNIX operating system or the CRS hardware and are reported to the Operator Terminal in the form of Commercial-Off-The-Shelf (COTS) error messages (i.e., NOTICE, WARNING, and PANIC) and via the ***Message Monitor*** window (see Figure 153). As noted in paragraph 3.5.2.1, this window is presented in an iconified state upon logging on and remains so until a UNIX error occurs, at which point the window is restored to alert you to the pending error notification.

Since these errors are COTS in nature and are discussed extensively in the UNIX operating system manuals delivered along with CRS, they will only be briefly discussed in the following paragraphs. Therefore, if and when you observe an error message of this type, you may want to refer to the UNIX manuals--specifically, *Programming with System Calls and Libraries*--for an explanation or further clarification of the error but you should then notify the CRS system administrator, since these errors are beyond the realm of the CRS site operator.

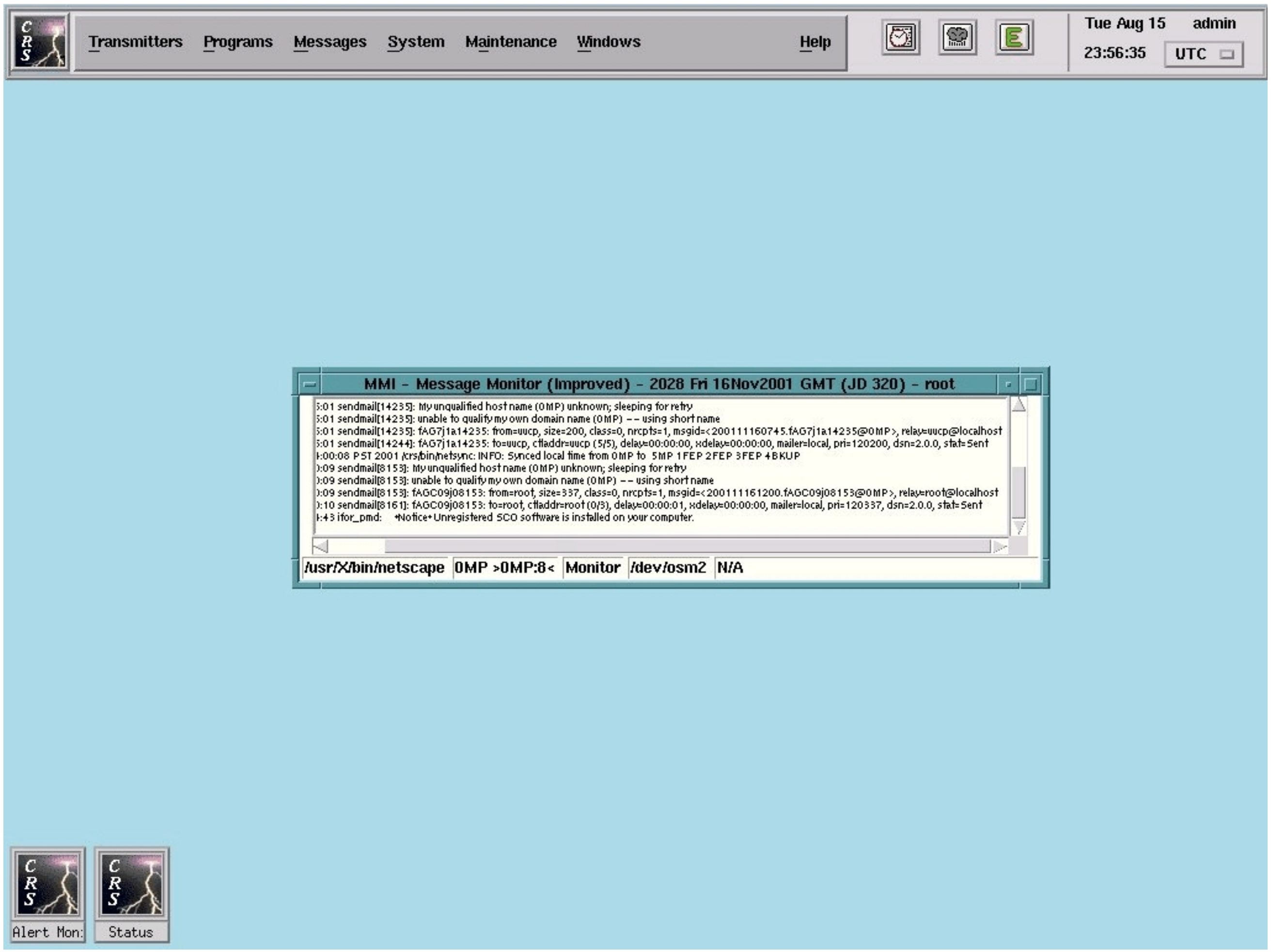
4.2.1. UNIX Error Messages

UNIX error messages are divided into three severity classes: NOTICE, WARNING, and PANIC. When an error message is displayed via the Operator Terminal, its severity class is displayed as the first part of the message (as shown in Figure 143). Each of these severity classes is defined as follows:

a. NOTICE Error Messages. These messages provide information on system status. They may help you anticipate problems before they occur.

b. WARNING Error Messages. These messages indicate that the system may stop functioning if corrective action is not taken.

c. PANIC Error Messages. These messages indicate a problem severe enough that the operating system must stop. They can be caused by hardware, software, or configuration problems.


CRS
Transmitters
Programs
Messages
System
Maintenance
Windows
Help
Tue Aug 15
admin
23:56:35
UTC
MMI - Message Monitor (Improved) - 2028 Fri 16Nov2001 GMT (JD 320) - root
Alert Mon:
Status

```
:01 sendmail[14235]: My unqualified host name (0MP) unknown; sleeping for retry
:01 sendmail[14235]: unable to qualify my own domain name (0MP) -- using short name
:01 sendmail[14235]: fAG7j1a14235: from=uucp, size=200, class=0, nrcpts=1, msgid=<200111160745.fAG7j1a14235@0MP>, relay=uucp@localhost
:01 sendmail[14244]: fAG7j1a14235: to=uucp, ctladdr=uucp (5/5), delay=00:00:00, xdelay=00:00:00, mailer=local, pri=120200, dsn=2.0.0, stat=Sent
:00:08 PST 2001 /crs/bin/netsync: INFO: Synced local time from 0MP to  5MP 1FEP 2FEP 3FEP 4BKUP
:09 sendmail[8153]: My unqualified host name (0MP) unknown; sleeping for retry
:09 sendmail[8153]: unable to qualify my own domain name (0MP) -- using short name
:09 sendmail[8153]: fAGC09j08153: from=root, size=337, class=0, nrcpts=1, msgid=<200111161200.fAGC09j08153@0MP>, relay=root@localhost
:10 sendmail[8161]: fAGC09j08153: to=root, ctladdr=root (0/3), delay=00:00:01, xdelay=00:00:00, mailer=local, pri=120337, dsn=2.0.0, stat=Sent
:43 ifor_pmd:    *Notice* Unregistered SCO software is installed on your computer.
```

/usr/X/bin/netscape | 0MP >0MP:8< | Monitor | /dev/osm2 | N/A

Figure 160. Message Monitor Window

5. DIAGNOSTICS FEATURES

CRS features extensive system diagnostics capabilities that can be categorized into two separate and distinct types: offline diagnostics and online diagnostics. These two types are briefly discussed in paragraphs 5.1 and 5.2. For a detailed description of these diagnostics types as well as the step-by-step procedures for using the diagnostics to isolate hardware faults to the Line Replaceable Unit (LRU) level, please refer to the *CRS Maintenance Manual* (CDRL 037).

5.1. Offline Diagnostics

The offline diagnostics for CRS consist of diagnostics software and trouble-shooting procedures for analyzing and testing the MPs, FEPs, LAN Server, Audio Control Panel (ACP), Audio Switching Assembly (ASA), Audio Switch Controller (ASC), Audio Switch Module (ASM), Dial-up Modems, and Epson Printer. Diagnostics for analyzing and testing the Main Processors (MPs) and Front-End Processors (FEPs) are based on the System Diagnostics Software (SDS), which can be loaded into the MPs or FEPs and then used to isolate faults to the LRU level. Diagnostics for the LAN Server (i.e., the Digi PortServer8) are based on embedded diagnostics and include Power On Self Test (POST), Command Mode, and User Diagnostics. Diagnostics for the ACP, ASA, ASC, and ASM are based on built-in test equipment (BITE), which can be used to test these components and further isolate faults (again, to the LRU level). Diagnostics for the Dial-up Modems are based on embedded diagnostics, which are executed during power-up and initialization, and diagnostics for the printer consist of power-up self-tests that can be executed from the printer's front panel.

In the event you need additional information on and/or the step-by-step procedures for executing the offline diagnostics, please refer to the *CRS Maintenance Manual* (specifically, paragraph 4.4.3.2).

5.2. Online Diagnostics

The online diagnostics for CRS consist of those provided as a part of the UNIX operating system and those provided as a part of the CRS application software. These online diagnostics are further elaborated on in paragraphs 5.2.1 and 5.2.2.

5.2.1. UNIX Operating System Online Diagnostics

As discussed in paragraph 4.2, UNIX provides notification of operating system errors and low resources via NOTICE, WARNING, and PANIC messages. NOTICE messages provide information on system status and may help you anticipate problems before they occur. WARNING messages, on the other hand, indicate that the system may stop functioning if corrective action is not taken, and PANIC messages indicate a problem severe enough that the operating system must stop. All three types of errors are reported to the Operator Terminal (via the ***Message Monitor*** window).

In the event you receive a NOTICE, WARNING, or PANIC message and are uncertain as to what to do, you should refer to the UNIX manuals (specifically, *Programming with System Calls and Libraries*) delivered along with your system.

5.2.2. CRS Application Software Online Diagnostics

As discussed in paragraph 4.1, each computer software component (CSC) comprising the CRS application software is responsible for error detection and reporting relative to the processing function that it performs and to the data it processes. Errors can be detected by the underlying UNIX operating system when system calls are made. Errors can be detected by one CRS CSC when processing data passed to it by another CRS CSC. Errors returned to CRS CSCs by other CRS CSCs are typically logged in CRS error logs (located in **/crs/logs**). Some of these CRS CSC errors may, depending on their criticality, eventually result in an error message being queued to the ***Alert Monitor*** window.

In the event you receive a CRS application software error message, you should first refer to Section 4 of this manual for further clarification on and corrective action for reconciling the error condition. Depending on the type and criticality of the error, you may be instructed (in Section 4) to contact your CRS system administrator who, in turn, may have to contact NWSHQ to apprise them of the problem and to obtain further technical assistance.

Appendix I - Loading/Removing the CRS Application Software

10. LOADING/REMOVING THE CRS APPLICATION SOFTWARE

Loading/removing the CRS application software is a straightforward and automated process. It is tailored to work with CD-ROM media and is based on user-friendly scripts that feature interactive prompts and options that guide you along the way and help you achieve the desired application software load/removal. Some of the key features (or software load/removal options) provided include:

- **Custom Shell Scripts and Standard Unixware Application Software**

  Custom shell scripts activated from the desktop App_Installer program selectively invoke Network File System (NFS) and UnixWare package processing capabilities to perform an installation.

- CD ROM Based Installation

  CRS application software is distributed and installed on all processors directly from the CD-ROM on the installation main processor.

- Selective Installation/Removal

  CRS application software can be installed/removed on/from all processors, on/from the front-end processors only, on/from the main processors only, or on/from a selected processor in a configuration.

- Non-standard Configuration Recognition

  Software can be installed/removed on/from a "non-standard" configuration (i.e., configuration which does not have a backup front-end processor [e.g., 4BKUP] or "other" main processor [e.g., 0MP or 5MP]).

- Optional Generic Site Configuration

  Generic site configuration tailored to the number of transmitters (operator specified) is optional (operator choice) when no configuration file is detected.

- Minimal Operator Interaction

  Operator interaction during installation/removal is limited to simple point-and-click operations plus a minimal number of keystrokes in response to a few multiple-choice prompts.

- Result Summary

  A summary of any ERROR or WARNING messages generated during software installation/removal is presented at the end of the installation, before the shutdown prompt (below), to inform the operator of the success or failure of the operation.

The CRS application software load media and software load/removal procedures are described below in paragraphs 10.1 & 10.2.

10.1. CRS Application Software Load Media

The load media for the CRS application software consists of 1 CD ROM.

10.2. CRS Application Software Load/Removal Procedures

10.2.1. Software Load Procedures

10.2.1.1. Preparation for Installation

a. If the CRS application is running, terminate it by selecting the **Stop System** option from the CRS main menu item, **System**, at one of the main processor (MP) consoles, wait until CRS is "down" (red down arrow indicator in the **Status Monitor** window), then select the **Exit to Unix** option from the **System** menu item.

b. Ensure that all processors (MPs and FEPs) on which software is to be installed are powered on and on-line (accessible over the local area network).

c. Choose one of the main processors to be the installation MP, log in as **root**, then double-click the **Admin_Tools** icon in the **UnixWare Desktop - root** window, and double-click the **App_Installer** icon.

d. Insert the CD-ROM into the CD drive of the selected installation main processor, then select **CD-ROM_1** from the "pop-up" menu following the "Install from:" prompt in the upper half of the **Application Installer** window pane.

e. After the CRS application package icons (**crsopsais**, **crsopsfpm** and **crsopsmpm**) are displayed below the "Install from" prompt, select **crsopsais**, and click on **Install** (**Note 1: crsopsfpm** and **crsopsmpm** can only be installed indirectly through **crsopsais**).

f. You are now ready to commence the software load. To continue, go to paragraph 10.2.1.2 and respond to the prompts displayed in the **Add Application: crsopsais** and **auto_install** terminal windows. The **Add Application: crsopsais** window and the **auto_install** window are used to display the installation activity log as well as the prompts to the installation operator. The log information and the prompt sequences vary depending on the responses to the prompts.

   Please **note** that the installation procedures provided in paragraph 10.2.1.2 are based on a *typical* configuration where main processor 0MP or 5MP is the selected installation main processor. However, if you are loading the software onto a configuration other than a *typical*, the prompt sequences and options are still the same; the only real differences are the processor names that appear in some of the prompts.

10.2.1.2. Installing from 0MP or 5MP on a Typical Configuration

If the **crsopsais** version on the CD-ROM differs from the installed version, then the prompt sequence begins with ***ip3*** (by default the same version must be installed on all processors); otherwise, it begins with ***ip1.*** Unless otherwise indicated prompts occur in sequence (***ip1 ... ip10***).

ip1

```
Build [version] installation options
a) all processors (0MP 5MP 1FEP 4BKUP | 5MP 0MP 1FEP
4BKUP)
f) front-end processors (1FEP 4BKUP)
m) main processors (0MP 5MP | 5MP 0MP)
s) specific processor
Select installation option (default: a):
```

Select the appropriate option (a, f, m, s). The subsequent prompt will vary depending on the option selected. If option a, f, or m is selected, the next prompt is ***ip3***; otherwise ***ip2***.

ip2

```
Specific processor options
0) 0MP
1) 1FEP
4) 4BKUP
5) 5MP
Select processor (default: 0):
```

Note 2: CRS application software is transferred to all other processors from the CD-ROM on the installation main processor (0MP | 5MP) via a combination of Network File System (NFS) and UNIX package processing programs.

Note 3: When the CRS installation software detects that there is no configuration file (**/crs/data/SS/CRS_sys_cfg**), it allows the operator the option of installing a generic configuration file.

ip3 Enter your CRS site ID (e.g., DLH or NRC1):

Enter the correct local site ID. Entry of a valid site ID results in a comparison of a set of expected IP addresses and the actual IP addresses in **/etc/inet/hosts** on all accessible (on-line) CRS processors. Differences between expected and actual IP addresses are displayed and logged. Entry of no response or an invalid site ID results in prompt ***ip4***.

ip4 Display a list of all valid CRS site IDs? (default: y)

An affirmative (y) response to this prompt will result in the display of a list of valid CRS site IDs and associated site locations (city, state, region). The list is presented in "pages" via the UNIX utility "pg". The RETURN key or '+' displays the next page, the '-' key displays the previous page, and 'q' results in the display of prompt ***ip3***. A negative (n) response results in the display of prompt ***ip3***.

ip5 Change embedded CRS user password in **/crs/bin/ftp.ksh**? (default: y)

An affirmative (y) response to this prompt will result in the display of the standard UNIX password prompts:

New password:
Re-enter new password:

These prompts accept and confirm the new password for the CRS user, which will replace the CRS user password in the ftp.ksh script on both main processors during installation. A negative response (n) to this script will result in the display of the prompt ***ip6***.

ip6 Clean out (reset) log files? (default: y)

An affirmative (y) response to this prompt will result in the resetting of all the CRS application software log files on all the processors in the configuration. A negative response (n) will result in no changes to the CRS log files on any of the processors. **It is normally good practice to clean the log files with a new installation of software.**

ip7 Change CRS system date and time? (default: n)

An affirmative (y) response to this prompt will result in a sequence of additional prompts beginning with ***ip7***. The entered date will be used to change the date and time on all the processors. A negative response (n) will result in no changes to the current system date and time (displayed prior to the prompt), and the next prompt will be ***ip12***.

ip8 Enter year (e.g., 1997):

ip9 Enter month (e.g.,01<=mm<=12):

ip10 Enter day (e.g., 01<=dd<=31):

ip11 Enter hour (e.g., 00<=HH<23):

ip12 Enter minute (e.g., 00=MM<=59):

ip13 Build [version] will be installed on the following processors:

```
[0MP | 5MP | 1FEP | 4BKUP ...]
with the following options:

Detected configuration is typical
[CRS master (and X-window client) [will be | remains ]
5MP |
CRS shadow (and X-window server) remains 5MP]
[CRS shadow (and X-window server) [will be | remains ]
0MP |
CRS master (and X-window client) remains 0MP]
[CRS log files will be cleaned (reset) on: [5MP 0MP
1FEP 4BKUP]]
[New CRS user password will be embedded in
/crs/bin/ftp.ksh on: [5MP 0MP]]

Proceed with Build [version] installation? (default: y)
```

An affirmative (y) response to this prompt will result in the installation of the CRS application software with the appropriate constraints indicated. A negative (n) response will result in the display of a **Message** dialog window with the text "User does not have permission to install packages pkgadd". OK terminates installation.

Note 4: The installation main processor becomes the CRS master processor, and the other main processor becomes the CRS shadow processor as a result of the installation. The CRS X-Window client application software is activated only on the installation main processor as a result of the installation.

10.2.1.3. Post-Installation Caveats and Conventions

Software is installed to CRS processors in a predefined sequence (MPs, then FEPs). When the software has successfully been installed on a processor other than the installation MP, that processor is automatically shut down (restarted). Because the front-end processors share a single console (monitor and keyboard), **only one of the FEPS** (the one to which the console is physically connected through the switch box) **starts itself automatically** after the shutdown command is issued from the installation MP. The startup sequence on a FEP that is not connected to a keyboard pauses while waiting for an F1 key to be struck at the keyboard. To complete the startup sequence for a FEP that is "stuck" waiting for the F1 key to be struck, **connect (via the switch box) the keyboard to the FEP, verify that it is waiting (prompt message on the monitor), and strike the F1 key.**

While the installation is in progress many messages are displayed in the **auto_install** log window on the console. Messages are of three types - ERROR, INFO, and WARNING. Most of these messages are also written to the installation log file (**/crs/install.log**). All ERROR and WARNING messages from the installation log file are displayed in the **auto_install** log window at the completion of installation in accordance with the following template:

```
ERRORS

[ERROR messages from the log file | None ]

[Refer to the installation/removal procedures.]

WARNINGS

[WARNING messages from the log file | None]

[Refer to the installation/removal procedures.]
```

Note 5: Shutting down the installation MP [0MP | 5MP] is an option. It is not necessary to shut down after software has been installed on a FEP. A shutdown is recommended after software has been installed on an MP to ensure that the installation MP [0MP | 5MP] is restarted as CRS master (and X-window client) after the other MP [0MP | 5MP] has restarted as CRS shadow (and X-window server).

```
Continue [0MP | 5MP] shutdown? (Default: n)
```

If there are no ERROR or WARNING messages (i.e., "None"), the reference to the installation procedures is not displayed. The **auto_install** log window is displayed until the operator responds to the prompt. An affirmative (y) response results in the automatic shutdown and restart of the installation MP. A negative (n) response results in the disappearance of the prompt and the **auto_install** log window unless the state (master or shadow) of the installation main processor has been changed, in which case the prompt "shutting down to synchronize MP functionality" informs the operator that the installation MP will be shut down regardless (shutdown occurs when the operator strikes any key).

ERROR and WARNING messages must be resolved before attempting to start the system! Refer to the discussion below regarding the content and format of log file messages, particularly ERROR and WARNING messages.

10.2.2. Software Removal Procedures

10.2.2.1. Preparation for Removal

a. If the CRS application is running, terminate it by selecting the **Stop System** option from the CRS main menu item, **System**, at one of the main processor (MP) consoles, wait until CRS is "down" (red down arrow indicator in the **Status Monitor** window), then select the **Exit to Unix** option from the **System** menu item.

b. Ensure that all processors (MPs and FEPs) from which software is to be removed are powered on and on-line (accessible over the local area network).

c. Choose one of the main processors to be the removal MP, log in as **root**, then double-click the **Admin_Tools** icon in the **UnixWare Desktop - root** window, and double-click the **App_Installer** icon.

d. After the CRS application package icon, **crsopsais**, is displayed in the lower half of the **Application Installer** window, select it, and click on **Remove**.

e. You are now ready to commence the software removal. To continue, go to paragraph 10.2.2.2 and respond to the prompts displayed in the **Delete Application: crsopsais** and **auto_remove** terminal windows. The **Delete Application: crsopsais** window and the **auto_remove** window are used to display the removal activity log as well as the prompts to the removal operator. The log information and the prompt sequences vary depending on the responses to the prompts.

Please **note** that the removal procedures provided in paragraph 10.2.2.2 are based on a *typical* configuration where main processor 0MP or 5MP is the selected installation main processor. However, if you are removing the software from a configuration other than a *typical*, the prompt sequences and options are still the same; the only real differences are the processor names that appear in some of the prompts.

10.2.2.2. Removing from 0MP or 5MP on a Typical Configuration

The prompt sequence begins with ***rp1,*** which is displayed in a separate window entitled **Delete_Application: crsopsais.**

rp1 The following package is currently installed:

```
crsopsais CRS operational site - automated installation
script (586) version.release
Do you want to remove this package [yes,no,?,quit]
```

An affirmative (y) response to this prompt will result in the removal of the **crsopsais** package, after which the **Delete_Application: crsopsais** window is replaced by the **auto_remove** window in which prompt ***rp2*** is displayed. A negative (n) or quit response will result in the disappearance of the **Delete_Application: crsopsais** window along with the ***rp1*** prompt (same status as after Step c above).

rp2

```
CRS software package removal options
a) all processors (0MP 5MP 1FEP 4BKUP | 5MP 0MP 1FEP
4BKUP)
f) front-end processors (1FEP 4BKUP)
m) main processors (0MP 5MP | 5MP 0MP)
s) specific processor
Select installation option (default: a):
```

Select the appropriate option (a, f, m, s). The subsequent prompt will vary depending on the option selected. If option a, f, or m is selected, the next prompt is ***rp4;*** otherwise ***rp3.***

rp3

```
Specific processor options
0) 0MP
1) 1FEP
4) 4BKUP
5) 5MP
Select processor (default: 0):
```

rp3 Proceed with CRS software removal? (default: y)

An affirmative (y) response to this prompt will result in the removal of the CRS application software packages from the selected processors (e.g., **crsopsais** and **crsopsmpm** from MPs and **crsopsfpm** from FEPs). A negative (n) response will result in the disappearance of the **auto_remove** window.

10.2.2.3. Post-Removal Caveats and Conventions

Software is removed from CRS processors in a predefined sequence (MPs, then FEPs). When the software has successfully been removed from a processor other than the removal MP, that processor is automatically shut down (restarted). Because the front-end processors share a single console (monitor and keyboard), **only one of the FEPS** (the one to which the console is physically connected through the switch box) **starts itself automatically** after the shutdown. The startup sequence on a FEP that is not connected to a keyboard pauses while waiting for an F1 key to be struck at the keyboard. To complete the startup sequence for a FEP that is "stuck" waiting for the F1 key to be struck, **connect (via the switch box) the keyboard to the FEP, verify that it is waiting (prompt message on the monitor), and strike the F1 key**.

While the removal is in progress many messages are displayed in the **auto_remove** log window on the console. Messages are of three types - ERROR, INFO, and WARNING. Most of these messages are also written to the removal log file (**/crs/remove.log**). All ERROR and WARNING messages from the removal log file are displayed in the **auto_remove** log window at the completion of removal in accordance with the following template:

```
ERRORS

[ERROR messages from the log file | None ]

[Refer to the installation/removal procedures.]

WARNINGS

[WARNING messages from the log file | None]

[Refer to the installation/removal procedures.]

Continue [0MP | 5MP] shutdown? (Default: n)
```

If there are no ERROR or WARNING messages (i.e., "None"), the reference to the installation/removal procedures is not displayed. The **auto_remove** log window is displayed until the operator responds to the prompt. An affirmative (y) response results in the automatic shutdown and restart of the removal MP. A negative (n) response results in the disappearance of the prompt and the **auto_remove** log window.

10.3. Logging and the Installation/Removal Log Files

Results of the installation/removal are logged to the **auto_install/auto_remove** window and to a log file (**/crs/[install/remove].log**). Logged messages are of three types - ERROR, INFO, and WARNING. INFO messages can be ignored. ERROR and WARNING messages are summarized in the **auto_install/auto_remove** window at the completion of the installation/removal, and they must be resolved before the CRS application is started.

All logged messages have the following format:

```
date: script: type: [...] on PROC
```

where

date = DDD MMM dd hh:mm:ss LLL YYYY

DDD	day of week abbreviation (e.g., Thu = Thursday)
MMM	month of year abbreviation (e.g., Sep=September)
dd	numeric day of month (1<dd<31)
hh	hour of the day in military format (00<hh<23)
mm	minute of the hour (00<mm<59)
ss	second of the minute (00<ss<59)
LLL	local standard time (e.g., PDT = Pacific Daylight Time)
YYYY	calendar year

script = name of shell script in which message is generated

type = ERROR | INFO | WARNING

[...] = text describing a condition of the type indicated

PROC = processor (e.g., 0MP, 5MP, 3FEP, 4BKUP) on which condition described by the text occurred

Appendix II - AFOS Weather Message Format Specifications

20. AFOS WEATHER MESSAGE FORMAT SPECIFICATIONS

This appendix describes the format specifications for an AFOS weather message. The information is provided (as an appendix to the CRS Site Operator’s Manual) so that you can correct (or "fix") an erred AFOS weather message, which may be received by CRS and then communicated to you in the form of an error message notification. This error message notification will be queued to the ***Alert Monitor*** window and will indicate the file name of the erred weather message, which can then be retrieved and corrected via the "Weather Message Correction" submenu (see paragraph 3.6.2.3.6).

20.1. Message Layer

AFOS messages for CRS are created by an AFOS applications program called an AFOS product formatter. Applications programs run automatically on either a time-scheduled or event-driven basis, and can also be invoked manually by a user. The following paragraphs serve to define the structure of the messages received by CRS from AFOS. The structure of messages which AFOS can send to CRS is identical to that received by the CRS from AWIPS, except that AFOS messages sent to CRS may be surrounded by AFOS information not relevant to CRS. Specifically, an "AFOS header" may precede and an end code may follow the CRS portion of the message. The "AFOS header" typically consists of a 9-character "AFOS identifier" plus a line feed. Other characters may precede or follow the "AFOS header". This AFOS information shall be completely ignored by CRS.

The CRS portions (ignoring the non-relevant AFOS information) of messages generated by AFOS for the CRS are ASCII strings which conform to the following four-part structure:

(1) Begin message indicator
(2) Message attributes
(3) Message content
(4) End message indicator

These sections are shown in Figure 1.

```
╔══════════════════════════════════════════════════╗
║  (1)          (2)                     (3)         (4)   ║
║ ┌───┬──────────────────┬─────────────────┬───┐ ║
║  $a   Message Attributes    Message Contents    $b   ║
╚══════════════════════════════════════════════════╝
```

Figure 1. Broadcast Message Structure

A field and byte-level representation of this structure is shown in Figure 2. Each of the fields consists of ASCII character data, and is defined in the paragraphs to follow.

```
╔══════════════════════════════════════════════════════════════════╗
║                                                                  ║
║       A   B   C  D  E     F         G       H      I    JKLMN    ║
║       ┌┐┌───┐┌─┐┌─┐┌─┐┌────────┐┌────────┐┌────┐┌─···┐     ║     ║
║       $aT_ENGCCCNNNXXXYYmmDDHHMMYYmmDDHHMMDDHHMMSSMRD...AD IA    ║
║                                                                  ║
║Char.                                                       (Cont.║
║Pos.            1         2         3         4             Below)║
║ ═══► 12345678901234567890123456789012345678901234567........     ║
║                                                                  ║
╟──────────────────────────────────────────────────────────────────╢
║                                                                  ║
║       O    P    Q                                   R            ║
║  ┌─────···┐┌─────────┐┌────────────···─────────────┐┌┐           ║
║  ZCC001....cYYmmDDHHMMThe weather...|MMThis storm...$b           ║
║                                                                  ║
║  ..................................................              ║
║                                                                  ║
╚══════════════════════════════════════════════════════════════════╝
```

Figure 2. Detailed Broadcast Message Structure

20.1.1. Begin Message Indicator

A. BEGIN MESSAGE INDICATOR - Each message begins with an ASCII sequence of characters: "$a", where the character "$" denotes the ASCII "escape" character. The two-character group consists of an "escape" (ASCII decimal representation 27) and a lower case "a" (ASCII 97).

20.1.2. Message Attributes

Message attributes are provided to control and facilitate the CRS scheduling and broadcast processes on a message basis, e.g., the ability of CRS to automatically output a specific message.

While the fields in Message Attributes are provided by an AFOS product formatter, they may be edited on the CRS side.

B. MESSAGE FORMAT - This five-character code is used to identify the format and language of the message text. The following MESSAGE FORMAT values will be recognized as valid:

V_ENG - English Voice
V_SPA - Spanish Voice

T_ENG - English Text
T_SPA - Spanish Text

C. NODE ORIGINATION SITE - This-three character field is the CCC field in the AFOS product identifier (CCCNNNXXX).

D. PRODUCT CATEGORY - This three-character field is the NNN field in the AFOS product identifier (CCCNNNXXX).

E. SPECIFIC PRODUCT DESIGNATOR - This three-character field is the XXX field in the AFOS product identifier (CCCNNNXXX).

F. CREATION DATE/TIME - The Date/Time that the product was created in AFOS. The format of the Creation Date/Time field is coded in decimal ASCII, and is:

YYmmDDHHMM

where: YY - last two digits of the year
mm - month of the year (01-12)
DD - day of the month
HH - hour of the day (UTC)
MM - minute of the hour (UTC)

G. EFFECTIVE DATE/TIME - The Date/Time after which the message may be output by CRS. The format of the Effective Date/Time field is coded in decimal ASCII, and is identical to that of the Creation Date/Time:

YYmmDDHHMM

H. PERIODICITY - The periodicity of message transmission for messages to be scheduled based on time. This eight-character numeric field is coded in decimal ASCII, and represents the days/hours/minutes/seconds (DDHHMMSS) of the period. This field will contain "spaces" (ASCII 32) for non-time-inserted messages.

I. MESSAGE REFERENCE DESCRIPTOR (MRD) - This is an optional field with variable length ranging from 0 to 95 ASCII characters. The format of the MRD field is coded in ASCII and is defined as:

mmmRmmm ... mmmFmmm ... mmm

where: mmm - CRS identifier (3 ASCII numeric characters) of the current message, ranging from 000 to 999 (i.e. 1000 CRS identifiers total)

Rmmm ... mmm -	"R" (ASCII 82) indicates "Replace", followed by a CRS identifier (3 ASCII numeric characters). Up to 19 additional CRS identifiers can be optionally added to this "Replace" group (total of 20 CRS identifiers).
Fmmm ... mmm -	"F" (ASCII 70) indicates "Follow", followed by a CRS identifier (3 ASCII numeric characters). Up to 9 additional CRS identifiers can be optionally added to this "Follow" group (total of 10 CRS identifiers).

J. ACTIVE/INACTIVE - This field is used by AFOS to direct messages into CRS inactive storage, and without subsequent transmission by the CRS. An "A" (ASCII 65) indicates active storage, an "I" (ASCII 73) indicates inactive storage, a "C" (ASCII 67) indicates active storage and designated for Voice Conversion(VC), and an "X" (ASCII 73) indicates inactive storage as well as inclusion in list (or notification) of AFOS/AWIPS messages designated for Synthetic Speech Override (SSO).

K. DELETE/SAVE - This field is used by AFOS to command CRS to save a message for an indefinite time in CRS inactive storage upon occurrence of its Expiration Date/Time, or to automatically delete it upon occurrence of its Expiration Date/Time. A "D" (ASCII 68) indicates automatic deletion; an "S" (ASCII 83) indicates indefinite storage.

L. MESSAGE CONFIRMATION ON/OFF - This single character field is used to command CRS to display a confirmation that the message was transmitted as appropriate by the CRS. A "C" (ASCII 67) indicates enabling of message confirmation; a "space" (ASCII 32) indicates disabling of message confirmation.

M. INTERRUPT FLAG - This single character field is used to command the CRS to interrupt any appropriate message currently being broadcast on the applicable transmitters with the message. An "I" (ASCII 73) indicates that the message may interrupt the current one on each applicable transmitter; a "space" (ASCII 32) indicates no interruption.

N. ALERT TONE - This single character field is used to command the CRS to broadcast the alert tone prior to broadcasting the message for the first time, or to command the CRS to disable the broadcast of any alert tone and NWRSAME tone for the message. An “A” (ASCII 65) indicates that the alert tone should precede the first broadcast of the message, and the NWRSAME activation state must be defined as on page 3-35 and 3-36 of the CRS System Requirements Specification (SRS). A “ ” (ASCII 32) indicates that no alert tone is broadcast for the message, and the NWRSAME activation state must be defined as on page 3-35 and 3-36 of the SRS. An “N” (ASCII 78) indicates that no alert tone and no NWRSAME tone are broadcast for the message. The “N” designation shall override the respective NWRSAME activation state defined on page 3-35 of the SRS if a conflict exists.

O. LISTENING AREA CODES - The notion of a message's LISTENING AREA code is defined as a collection of Universal Generic Codes (UGCs). These codes serve to specify geographical areas to be served by the message's transmission. This variable length field consists of an ASCII string containing an integer number (including zero) of Universal Generic Codes, separated by a "dash" (ASCII 45).

P. END OF LISTENING AREA CODES DELIMITER - The character "c" (ASCII 99) immediately follows the LISTENING AREA CODES field.

Q. EXPIRATION DATE/TIME - The Date/Time after which the message is ignored for transmission and may be deleted by CRS. The format of the Expiration Date/Time field is coded in decimal ASCII, and is identical to that of the Creation Date/Time:

YYmmDDHHMM

A "9999999999" in the field indicates that the message has no definite Expiration Date/Time.

20.1.3. Message Content

The AFOS product formatters create broadcast messages for the CRS in ASCII representation. The Message Content field of a broadcast message contains broadcast ready text; i.e., information which can be converted to voice by CRS with no operator intervention. In the case of an MRD specifying replacement, the Message Content field may be null (i.e., with the End Message Indicator immediately following the Expiration Date/Time).

The Message Content field may optionally contain a call-to-action, which consists of a "report separator", denoted by "|" (ASCII 30), MM field, and ASCII text to be associated with the message. The MM field, coded in ASCII decimal, indicates the timeout in minutes of the call-to-action. Neither the report separator nor timeout is to be converted to voice. There can be at most one call-to-action in the Message Content field. When it exists, it is always the last part of the Message Content field.

20.1.4. End Message Indicator

R. END MESSAGE INDICATOR - Each message ends with an ASCII sequence of characters: "$b", where the character "$" denotes the ASCII "escape" character. The two-character group consists of an "escape" (ASCII 27) and lower case "b" (ASCII 98).

Appendix III - List of Acronyms & Abbreviations

AC	Alternating Current
ACP	Audio Control Panel
ADC	Analog-to-Digital Converter
AFOS	Automation of Field Operations and Services
API	Application Programming Interface
ASA	Audio Switching Assembly
ASC	Audio Switch Controller
ASCII	American Standard Committee for Information Interchange
ASM	Audio Switch Module
AWIPS	Advanced Weather Information Processing System
BITE	Built-In Test Equipment
BU	Backup
CDRL	Contract Data Requirements List
CD ROM	Cartridge Disk Read Only Memory
COTS	Commercial Off The Shelf
CPU	Central Processing Unit
CRS	Console Replacement System
CSC	Computer Software Component
CTA	Call-to-Action
dB	Decibel(s)
DB	Database
DEC	Digital Equipment Corporation
DID	Data Item Description
FEP	Front-end Processors
FIPS	Federal Information Processing Standard
FSK	Frequency Shift Keying
GFE	Government Furnished Equipment
GOSIP	Government Open Systems Interconnect Protocol
Hz	Hertz
LAC	Listening Area Code
LAN	Local Area Network
LED	Light Emitting Diode
LRU	Line Replaceable Unit
MB	Mega Byte
MHZ	Mega Hertz
MMI	Man-Machine Interface
MP	Main Processor
MRD	Message Reference Descriptor
MU	Monitor Unit
NOAA	National Oceanic and Atmospheric Administration
NWR	NOAA Weather Radio
NWRSAME	NOAA Weather Radio Specific Area Message Encoder
NWS	National Weather Service

NWSHQ	NWS Headquarters
PB	Play Back
PC	Personal Computer
POSIX	Portable Operating System Interface for Computer Environments
PRC	Planning Research Corporation
RAM	Random Access Memory
RMA	Reliability, Maintainability & Availability
ROAMS	Remote Off-Air Monitoring System
SAME	Specific Area Message Encoder
SCSI	Small Computer System Interface
SDS	System Design Specification or System Diagnostics Software
SL	System Logging
SNQM	Secure Network Queue Manager
SOM	Site Operator's Manual
SRS	System Requirements Specification
TCP/IP	Transmission Control Protocol/Internet Protocol
TTS	Text-To-Speech
UGC	Universal Generic Code
UIS	User Interface Specification
UTC	Universal Coordinated Time
VAC	Volts-Alternating Current
VIP	Voice Improvement Processor
VU	Volume Unit
WPM	Words Per Minute

Appendix IV - CRS MMI Access Privileges by User Classification

40.1. CRS MMI ACCESS PRIVILEGES BY USER CLASSIFICATION

This appendix (specifically, Table 40-1) contains the menu-by-menu access privileges ("R" for readable, "W" for writeable, and "X" for executable) for the three classifications or "levels" of CRS users, i.e., System Administrator, Operator, and Maintenance Technician.

Table 40-1. CRS MMI Access Privileges by User Classification

Menu/Submenu Title	**CRS User Classification & Access Privileges**		
	System Administrator	**Operator**	**Maintenance Technician**
Transmitter			
Transmitter Configure	R,W	R	R
Listening Areas	R,W	R,W	R
Listening Zones	R,W	R,W	R
Disable Silence Alarm	R,X	R,X	No Access
Broadcast Cycle	R,W	R,W	R
ROAMS Data Query/Modify	R,W	R (Query only)	R (Query only)
ROAMS Alarm Titles Setup	R,W	R	R
Programs			
Broadcast Program	R,W	R,W	R
Program Assignment	R,W	R,W	R
Messages			
Broadcast Suites	R,W	R,W	R
Message Types	R,W	R,W	R
Message Groups	R,W	R,W	R
Message Type Association	R,W	R,W	R
Weather Message	R,W	R,W	No Access
Weather Message Correction	R,W	R,W	No Access
Message Components	R,W	R,W	No Access

Table 40-1. CRS MMI Access Privileges by User Classification (continued)

Menu/Submenu Title	**CRS User Classification & Access Privileges**		
	System Administrator	**Operator**	**Maintenance Technician**
Emergency Override	R,W	R,W	No Access
Call-to-Action Priority	R,W	R,W	No Access
Synthetic Speech Override	R,X	R,X	No Access
System			
System Status	R	R	R
Alert Monitor	R,W	R,W	R
Data Verify	R,X	No Access	No Access
Start System	R,X	R,X	R,X
Stop System	R,X	R,X	R,X
Start/Stop Shadowing	R,X	R,X	R,X
Start/Stop Log Printing	R,X	R,X	R,X
System Reports	R,X	R,X	R,X
Exit to UNIX	R,X	R,X	R,X
Maintenance			
Main Processor Switch	R,X	R,X	R,X
Front-End Processor Switch	R,X	No Access	R,X
UNIX Shell	R,X	No Access	No Access
Date/Time Update	R,X	No Access	No Access
Activity Logs	R,X	R,X	R,X
Initiate/Terminate Logging	R,X	No Access	No Access
Reset Log Files	R,X	No Access	No Access
Site Configuration	R,X	R	R
Pronunciation Dictionaries	R,W	R,W	R

Table 40-1. CRS MMI Access Privileges by User Classification (continued)

Menu/Submenu Title	**CRS User Classification & Access Privileges**		
	System Administrator	**Operator**	**Maintenance Technician**
Word Pronunciation	R,W	R,W	R
Error Message Format	R,W	R	R
Database Backup/Restore	R,W	No Access	No Access
Windows	R,X	R,X	R,X
Help			
About CRS	R,X	R,X	R,X
Help on this Screen	R,X	R,X	R,X
Online Manual	R,X	R,X	R,X